

FIG. 1
(Prior Art)

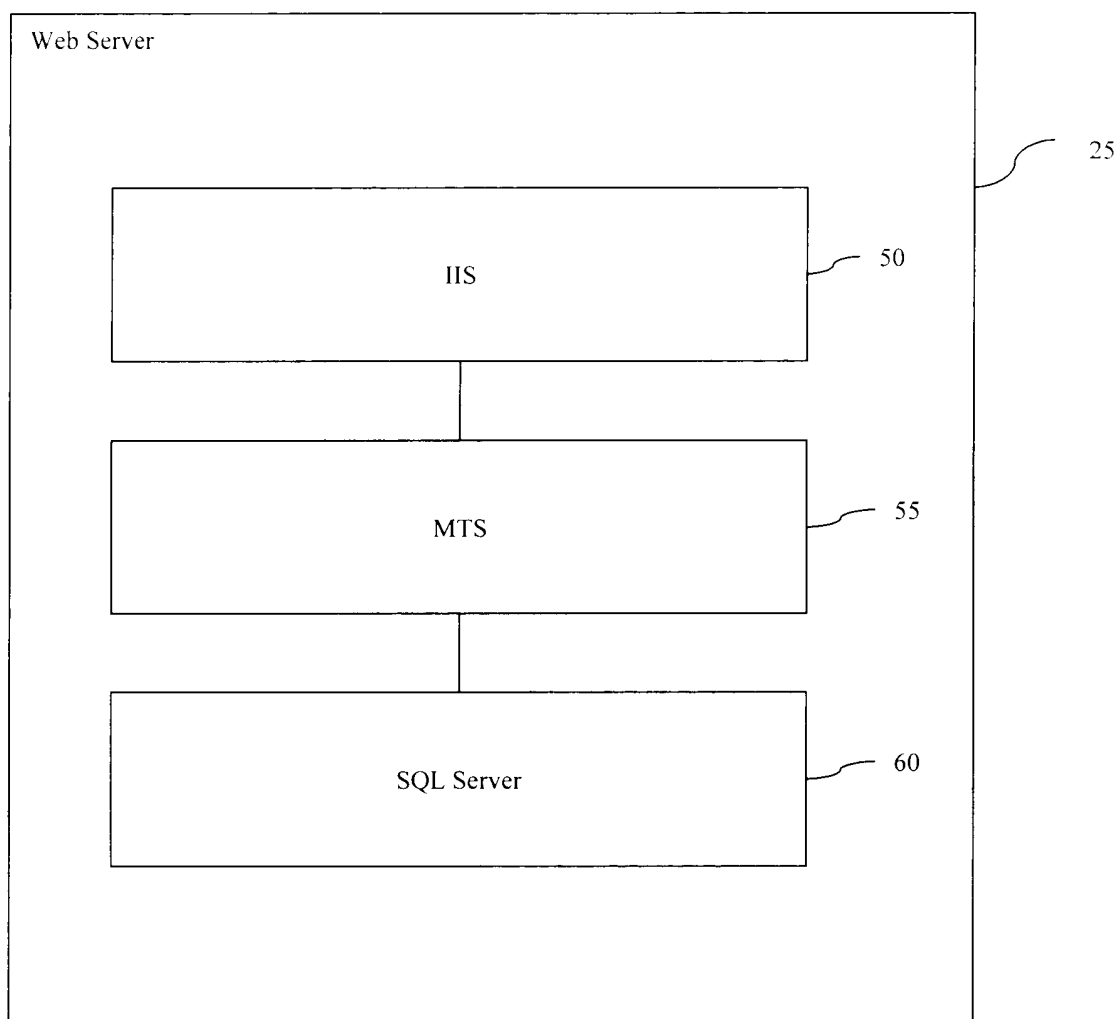


FIG.2
(Prior Art)

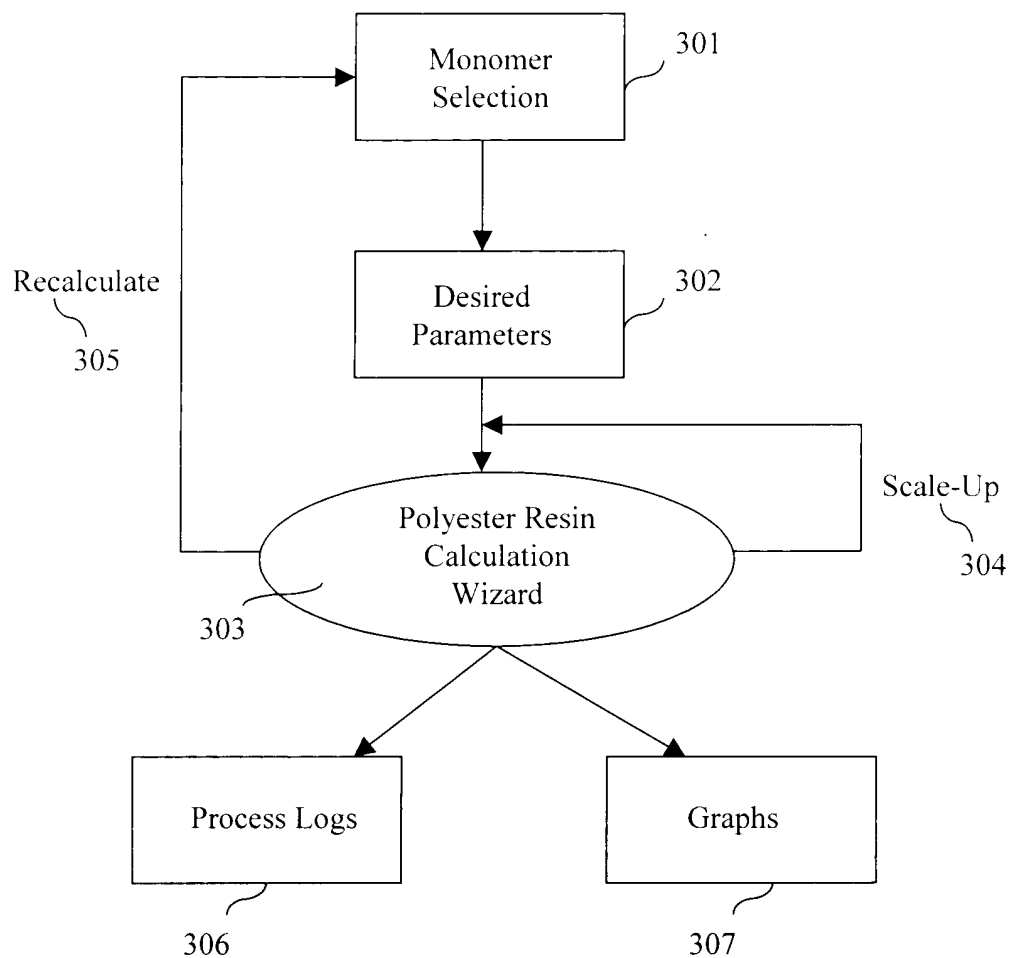


FIGURE 3A

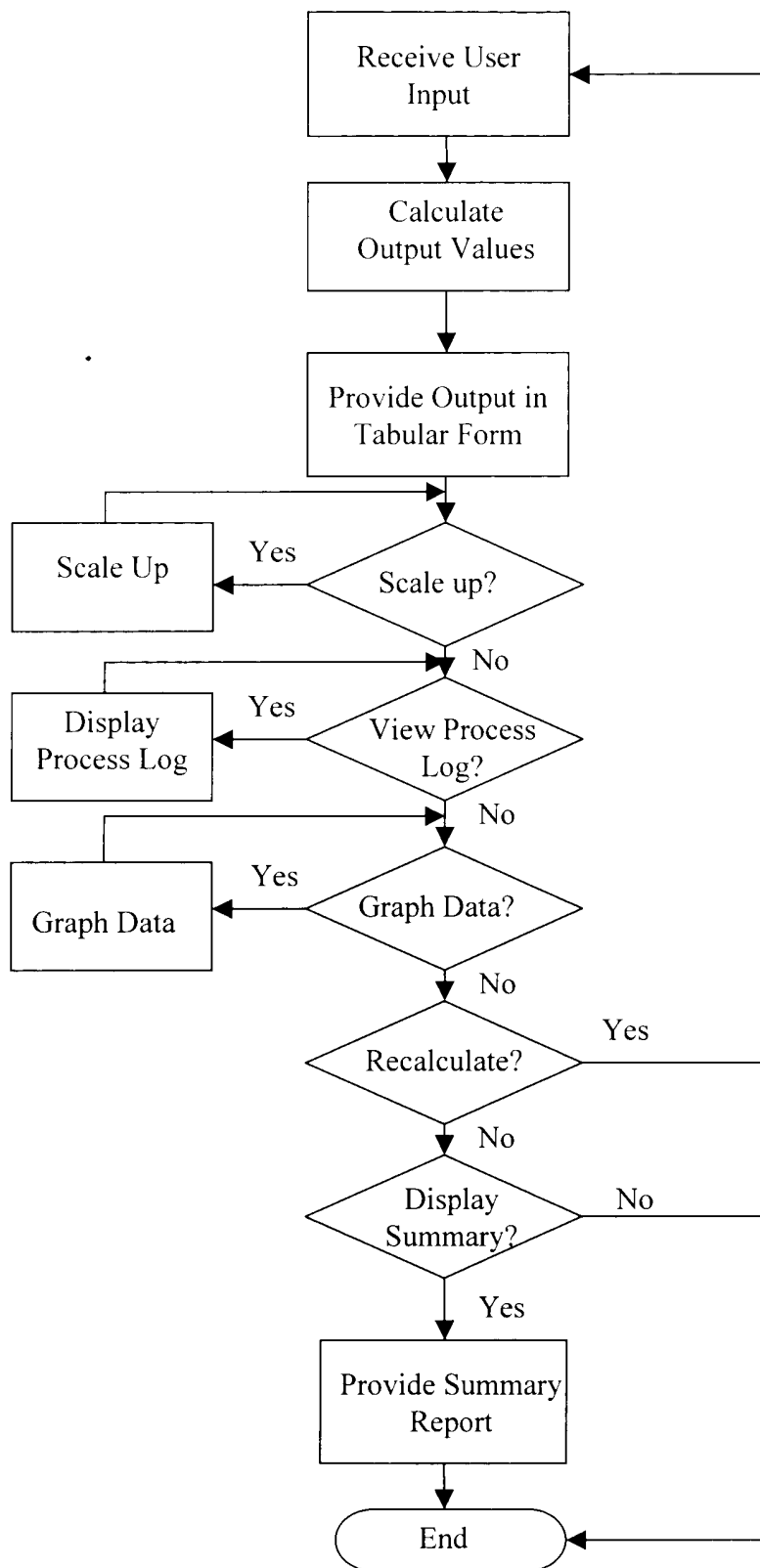


FIGURE 3B

Polyester Resin Calculation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

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Address <http://www.eastman.com/Wizards/ResinCalculationProgram/RCPMonomerSelect.asp> Go

Wizard
TECHNICAL SOLUTIONS

Polyester Resin Calculation 300

EASTMAN

Contact Us 391 How To Use The Wizard 312 Close Window 393

Monomer Selection

*=Required Field

Designated Resin Name: 310

Monomer Selection: * 314

Click here to Add Unlisted Monomer 390

1,2-epoxypropane

1,2-Propylene Glycol

1,3-Butanediol

1,3-Cyclohexanedicarboxylic Acid

1,4-Butanediol

HELP? 352

Excess:

Hydroxyl 354

Acid

Add Selected Monomers to the table below

Name 330	Molecular Weight 332	Acid Groups 334	Hydroxyl Groups 336	Condensate from the Acid 338	Condensate from the Hydroxyl 340	Weight Fraction Monomer in Resin 346	Weight Fraction Moiety In Monomer 348	Raw Material Cost 350
1,6-Hexanediol	118.16	0	2	0	9	0.847676	0	Delete 320A
2,6-Naphthalenedicarboxylic Acid 322	216.11	2	0	9	0	0.916709	0	Delete 320B

Clear all Monomer Selected

Click here to Continue 356

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FIGURE 3C




FIGURE 3D

Polyester Resin Calculation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

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Address <http://www.eastman.com/Wizards/ResinCalculationProgram/RCPMonomerConstr.asp> Go



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Polyester Resin Calculation

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[Return To Selection Screen](#)

Parameters for Hydroxyl Excess Resins

*** 0 Parameters Remain Unspecified *** [HELP?](#)

Excess Hydroxyl Equivalents, %

Patton (K) Constant

Hydroxyl Equivalent Weight

Number Average Molecular Weight, M_n

@Acid Number

Batch Size

☐ Use Acid:Hydroxyl Ratios ☐ Yes ☐ No

☐ Weight Ratios & Weight % ☐ Charge ☐ Final

☐ Charge ☐ Yield

[HELP?](#)

[HELP?](#)

[Done](#)
[Internet](#)

Monomer	Molar Ratios	Weight Ratios	Weight %
1,6-Hexanediol	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>
2,6-Naphthalenedicarboxylic Acid	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>

[Clear all Parameters](#)
[Click here to Continue](#)

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FIGURE 3E

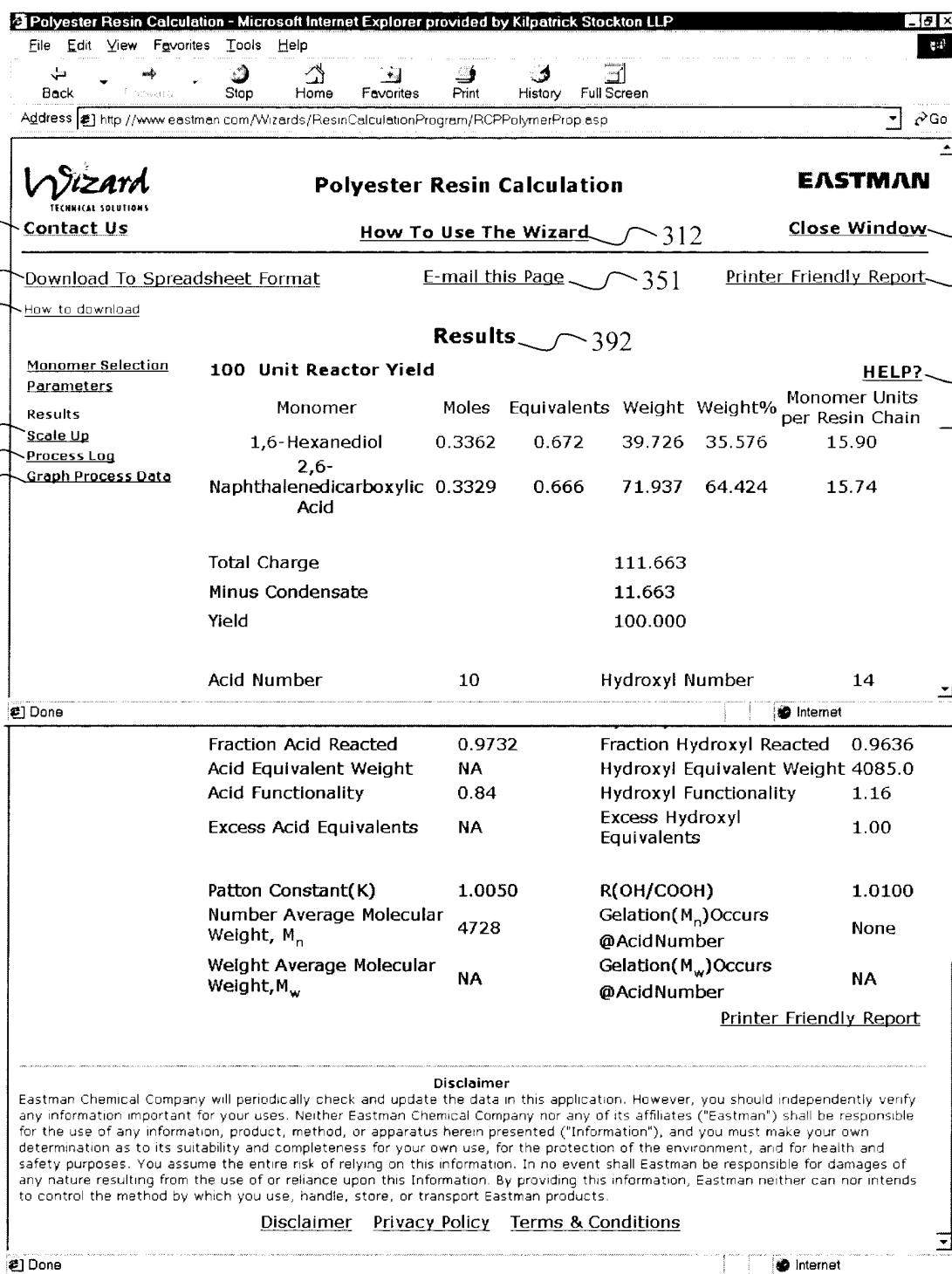


FIGURE 3F

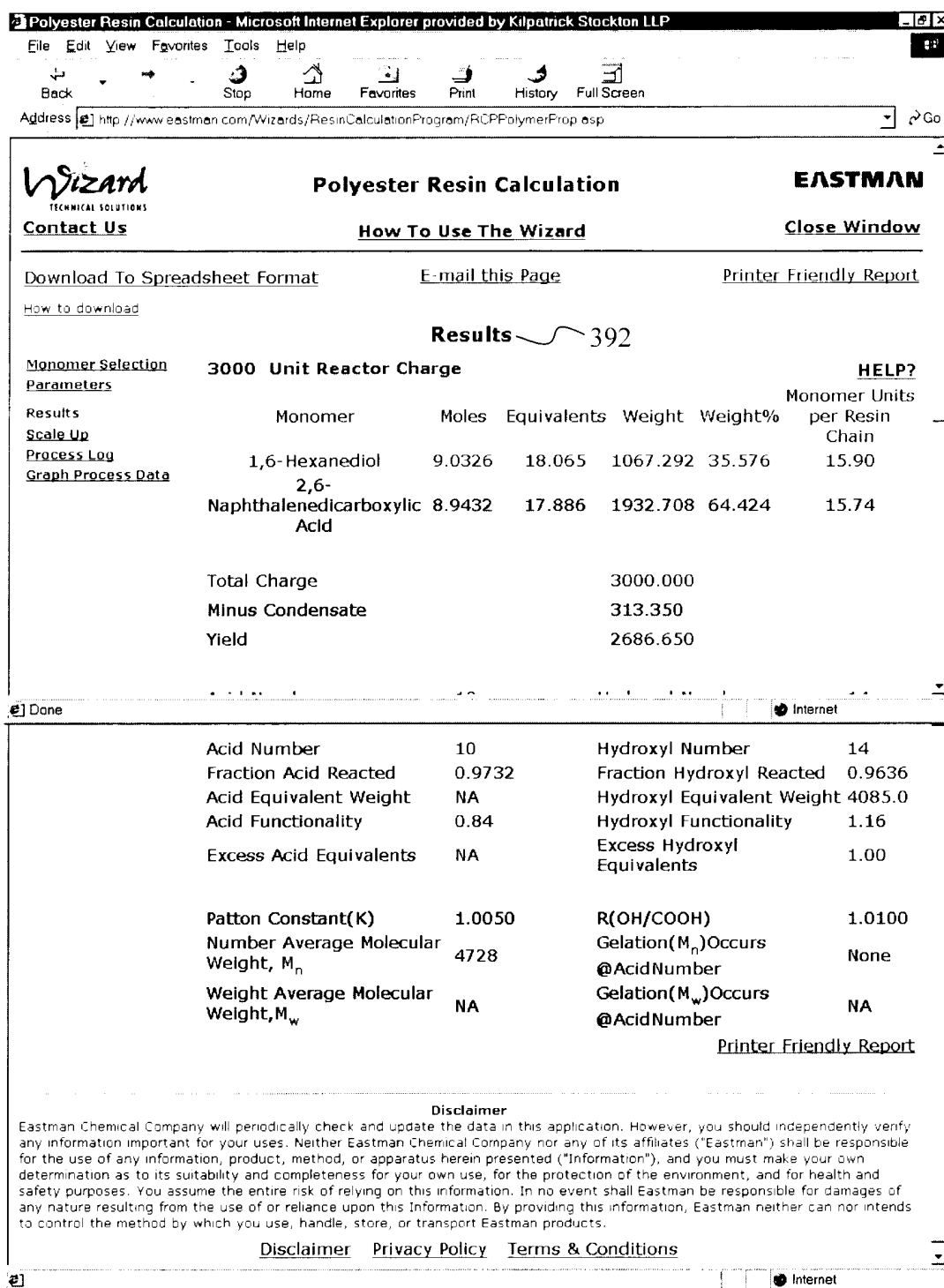


FIGURE 3G

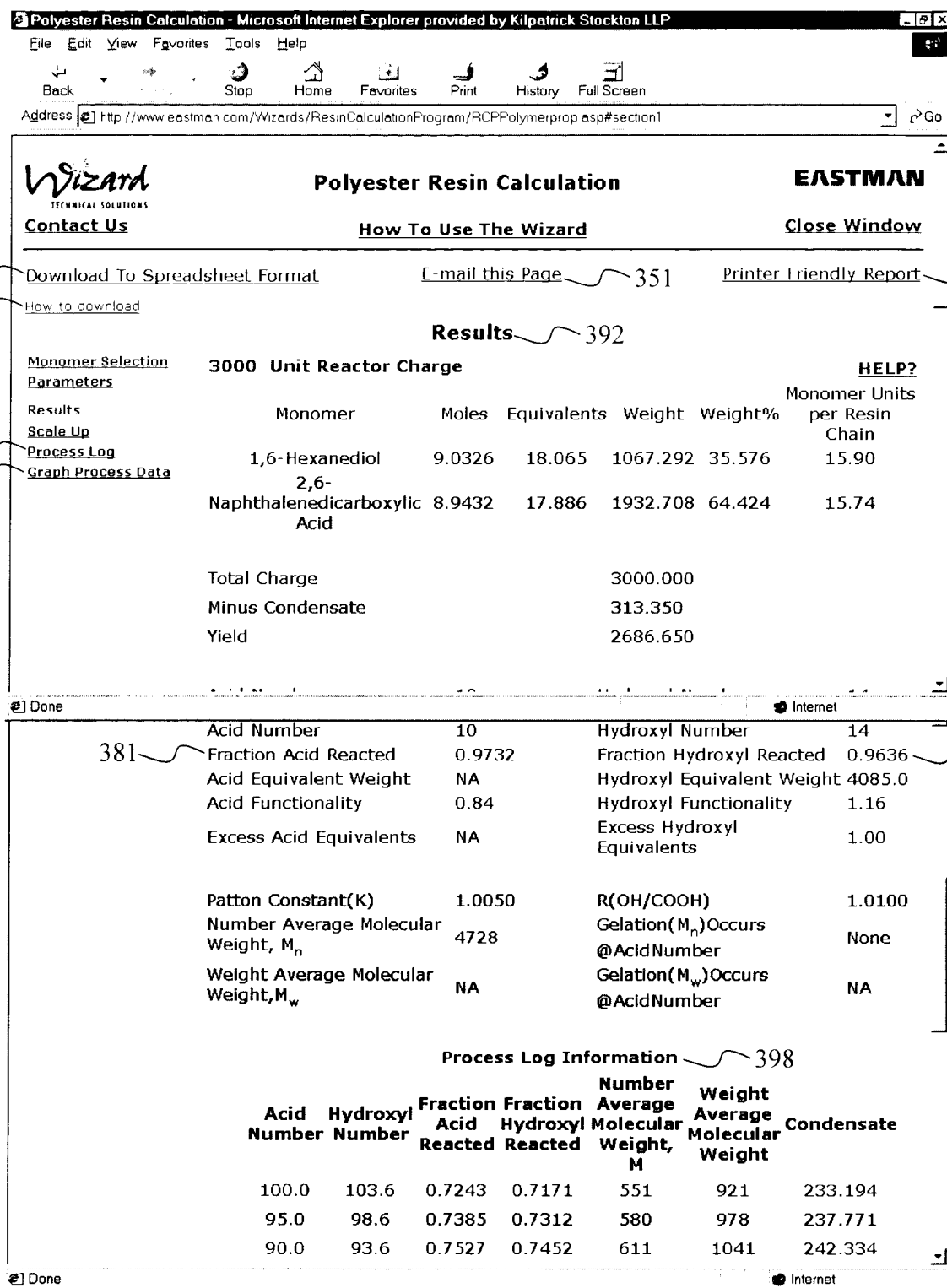



FIGURE 3H

Graph Process Data - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

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Address http://www.eastman.com/Wizards/ResinCalculationProgram/RCPGraphInfo.asp?Excess=True Go


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Polyester Resin Calculation
How To Use The Wizard

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Close Window

Graph Process Data

Select Parameters to Graph

Monomer Selection
Parameters
Results
Scale Up
Process Log
Graph Process Data

HELP?

Enter Acid Number Range

100	0	5
Upper	Lower	StepSize

One X coordinate and two Y coordinates may be selected.

387 Parameters X-Axis Y-Axis

Done Internet

Acid Number	<input checked="" type="checkbox"/>
Hydroxyl Number	<input type="checkbox"/>
Fraction Acid Reacted	<input type="checkbox"/>
Fraction Hydroxyl Reacted	<input type="checkbox"/>
Number Average MW	<input checked="" type="checkbox"/>
Weight Average MW	<input type="checkbox"/>
Condensate	<input type="checkbox"/>

Create Graph 389

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FIGURE 3I

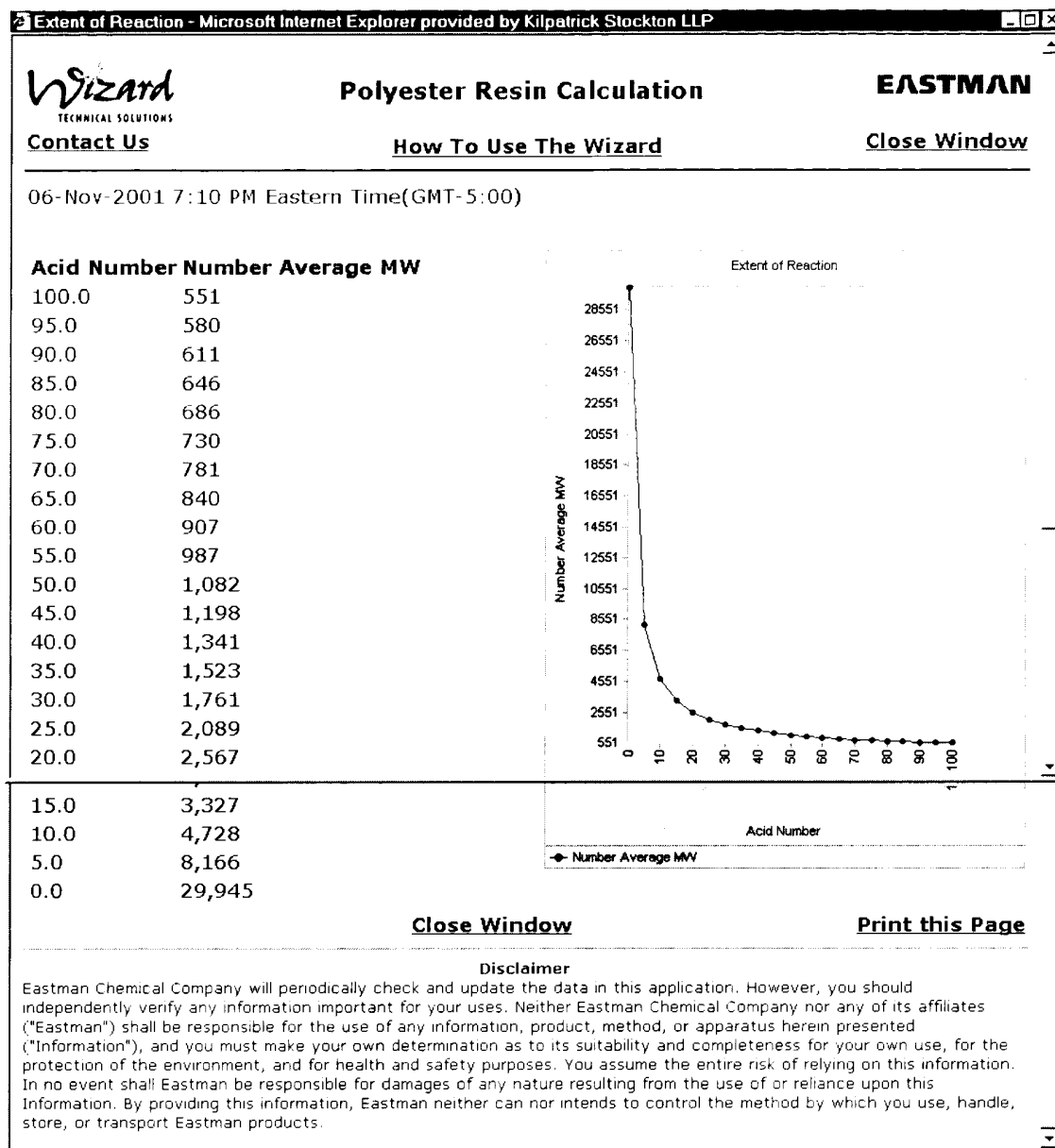


FIGURE 3J

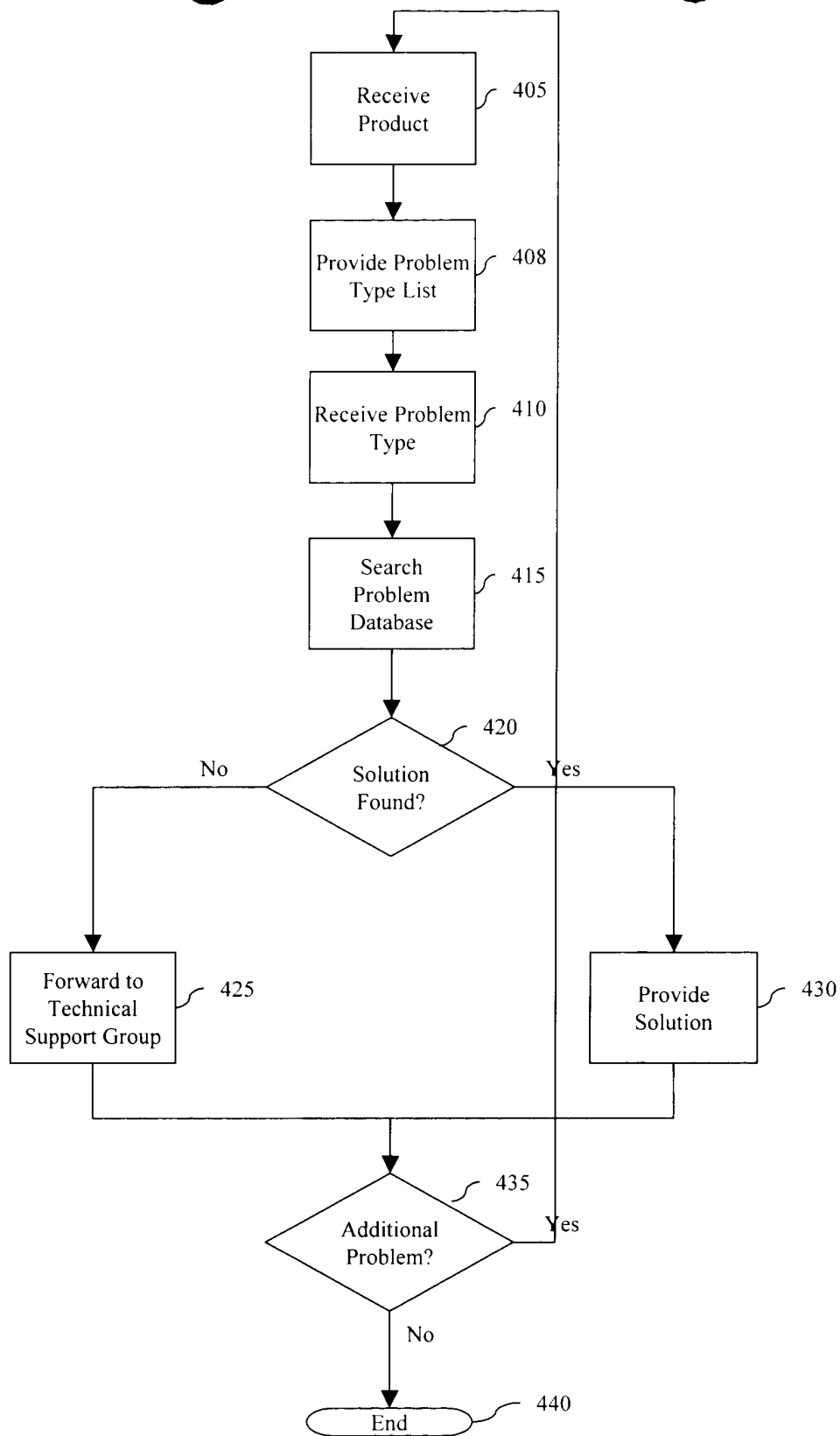


FIG. 4

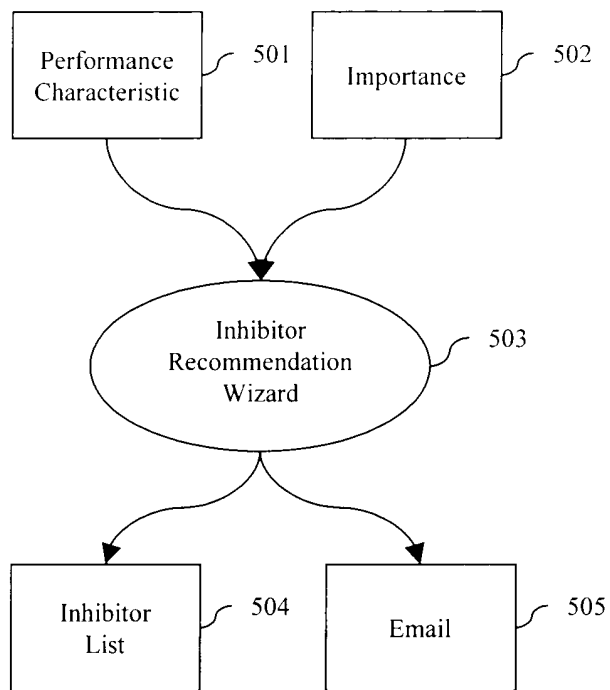


FIG. 5A

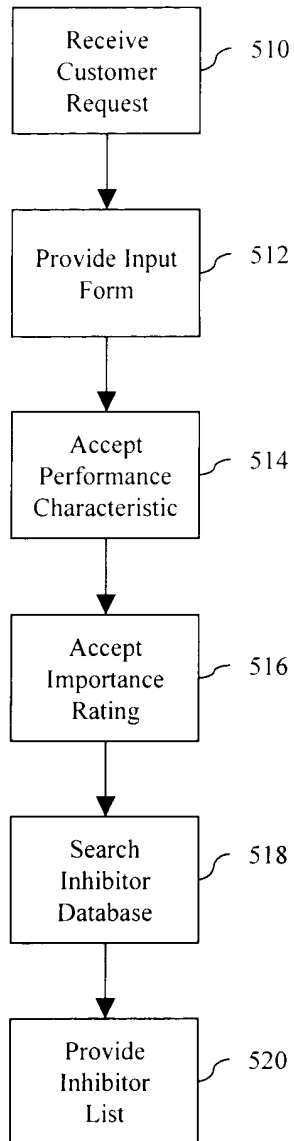


FIG. 5B

Wizard
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Inhibitor Recommendation **EASTMAN**

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[E-mail this Page](#) [Printer Friendly Version](#)

Desired Performance Characteristics and Importance **551**

Performance Characteristics **Importance** **Help ?**

	High	Medium	Low	None
Gel Time Extension	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Storage Stability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Low Color	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Active without Oxygen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Styrene Solubility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Glycol Solubility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alcohol Solubility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ketone Solubility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Low Cost	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Recommended Inhibitors **Rating**

[View Recommended Inhibitors](#) [Printer Friendly Version](#)

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FIG. 5C

Wizard
TECHNICAL SOLUTIONS

Inhibitor Recommendation **EASTMAN**

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21-Dec-2000 17:49 Eastern Time(GMT-5:00)

Desired Performance Characteristics and Importance

Performance Characteristics	Importance
Gel Time Extension	None
Storage Stability	None
Low Color	None
Active without Oxygen	None
Styrene Solubility	None
Glycol Solubility	None
Alcohol Solubility	None
Ketone Solubility	None
Low Cost	None

Recommended Inhibitors **Rating**

Product-1	100%
Product-2	90%
Product-3	70%

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FIG. 5D

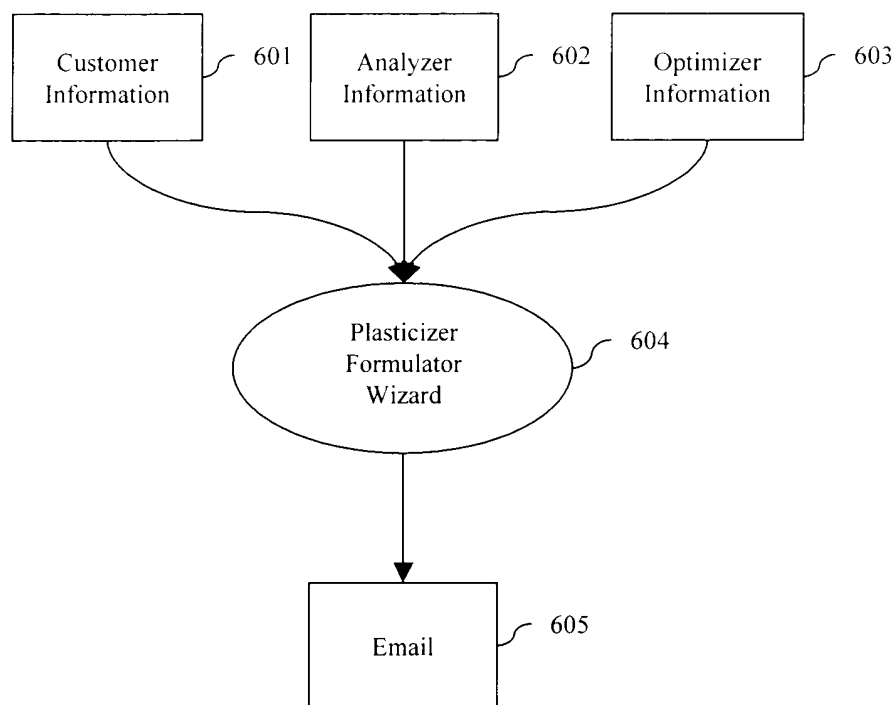


FIG. 6A

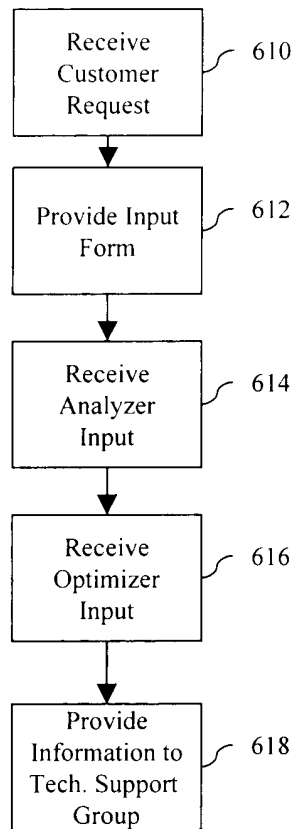


FIG. 6B

Plasticizer Formulator - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Stop Refresh Home Search Favorites History Mail Print Cut Copy Paste

Address http://eastman/wizard2/plasticizer/PlasDetail.asp

Search attempting to connect to Yahoo!

Wizard TECHNICAL SOLUTIONS **Plasticizer Formulator** **EASTMAN**

Contact Us How To Use The Wizard Close Window

* = Required field

620 ANALYZER 621 622

Ingredients (Must INPUT a minimum of one PVC Resin and one Plasticizer)

623 PVC Resin 1*

624 PVC Resin 2

624 Plasticizer 1*

624 Plasticizer 2

624 Plasticizer 3

624 Plasticizer 4

624 Plasticizer 5

625 Epoxidized Soybean Oil

626 Heat Stabilizer

PHR (Parts per Hundred Resin) Required field to predict physical properties

US Dollar/Pound Required field to calculate formulation cost

Return To The Customer Information

Done Local intranet

Start Exploring - adhebe80 Inbox - Outlook Express Adhebe80 - Micros Plasticizer Formul... Microsoft Word - Des... 5:25 PM

FIG. 6C

Plasticizer Formulator - Microsoft Internet Explorer

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Address http://eastman/wizard2/plasticizer/PlasDetail.asp

Search attempting to connect to Yahoo!

5.

Comments:
 Enter your comments for Analyzer.

OPTIMIZER

630 Physical Property Selection: *

631 SPECIFIC GRAVITY
 DUREMETER HARDNESS, A: 5 SEC
 TENSILE STRENGTH, PSI

Select at least one property for the formulation.
 Hold down the CTRL key while selecting multiple properties.
[Click here to enter property value](#)

Physical Property 633 = 634 <

632 Ingredient Names (Must INPUT a minimum of PVC Resin and one Plasticizer)

PVC Resin 1*

PVC Resin 2

Cost/Pound Required field to calculate formulation cost

Done Local intranet

Start Exploring - adhebe80 Inbox - Outlook Express Adhebe80 - Micros Plasticizer Formul... Microsoft Word - Des... 5:25 PM

FIG. 6D

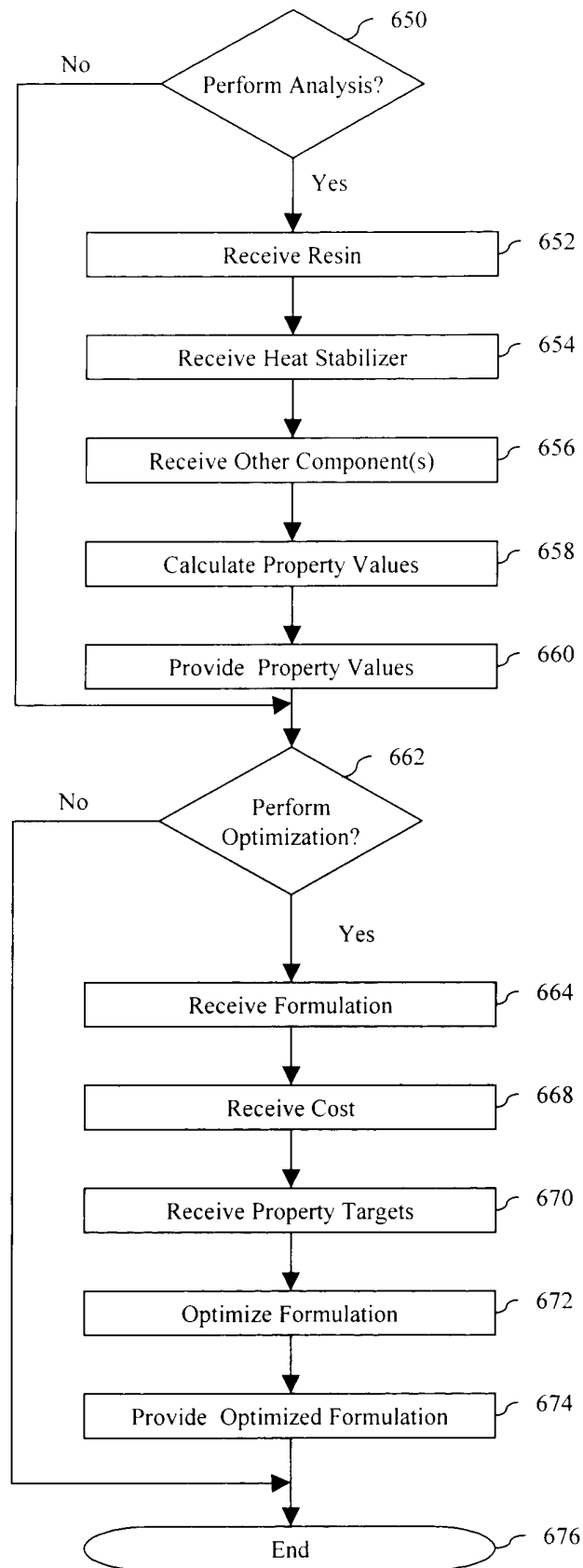


FIG. 6E

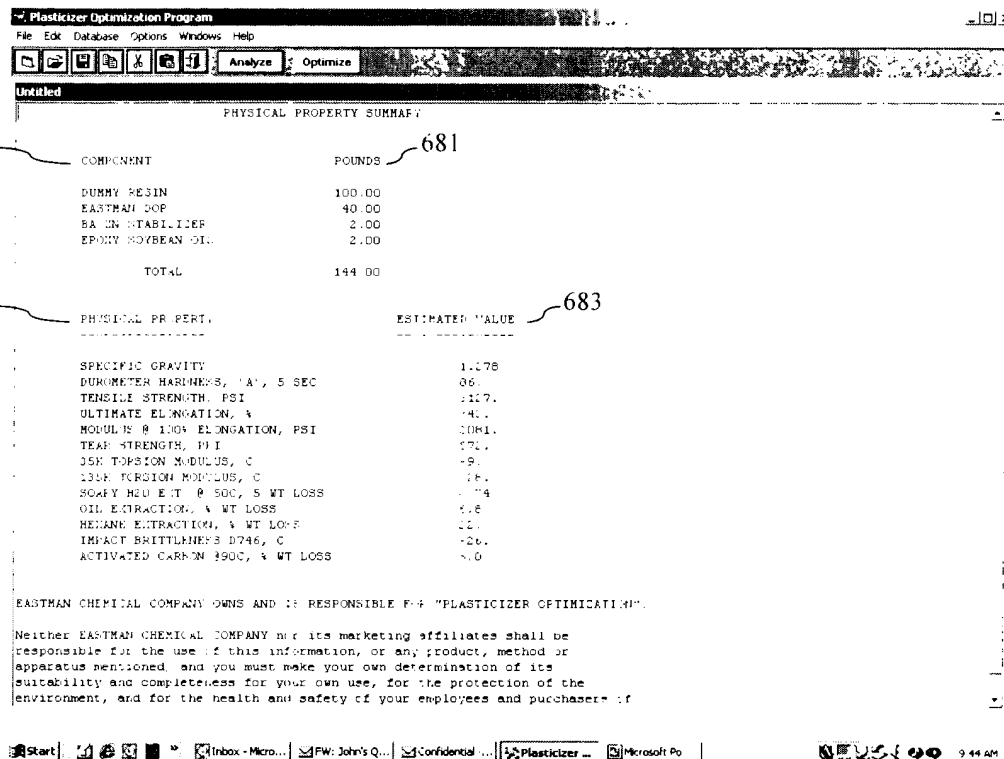


FIG. 6F

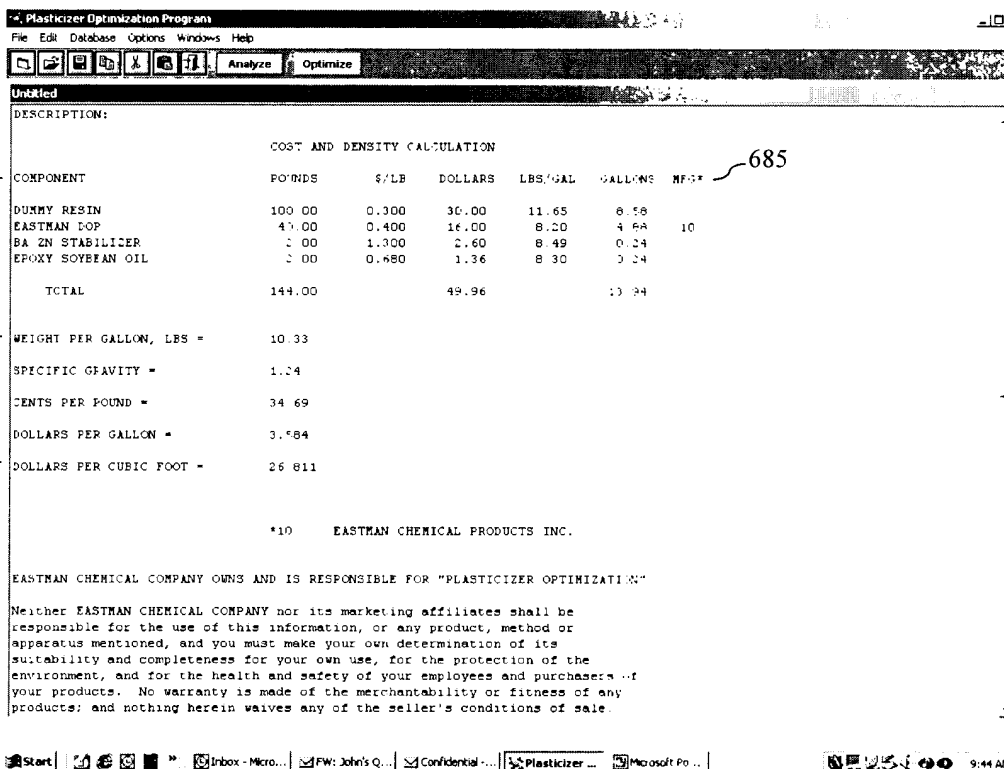


FIG. 6G

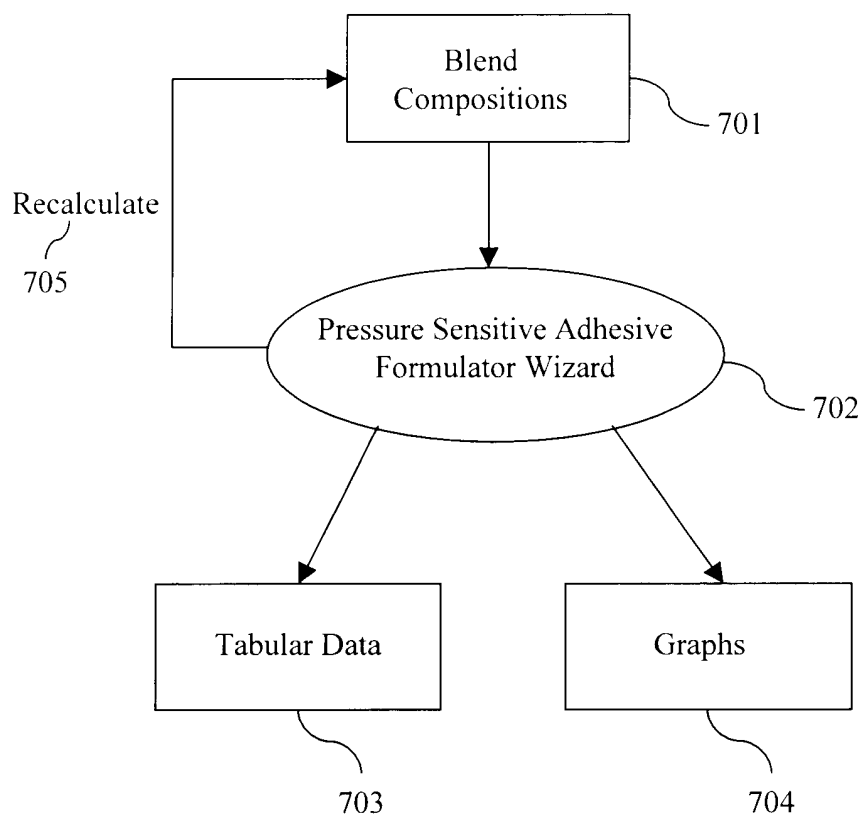


FIGURE 7A

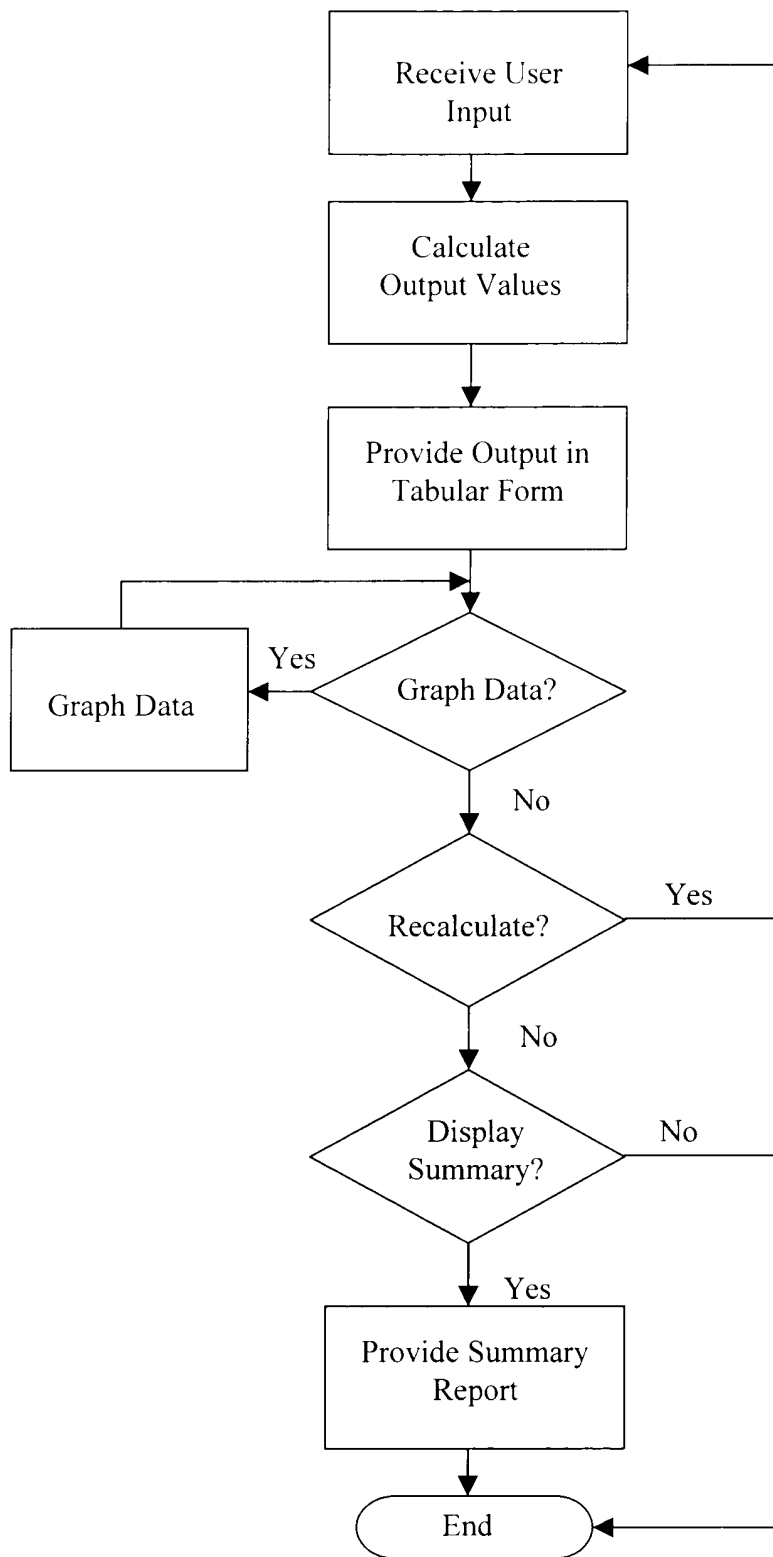


FIGURE 7B

700

Adhesive Formulator - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

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Address http://www.eastman.com/Wizards/Adhesive/AdhesiveMain.asp Go

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Pressure Sensitive Adhesive Formulator

Incorporating Eastotac Hydrocarbon Resin 712

EASTMAN 793

Contact Us **How To Use The Wizard** **Close Window** 793

***=Required Field** 774

Click to View Test Methods **Click to View Model Results** 736

Blend Composition

NOTE: The formulation composition must total to 99.5%

Formulation 720

1

Eastotac H-100R * 722 **Milled Natural Rubber *** 724 **Paraffin Oil *** 726

% **%** **%**

Clear 772

Click to add Formulation **Clear All added Formulations** **Click to View Properties** 732

Disclaimer 770

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731 733 735

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FIGURE 7C

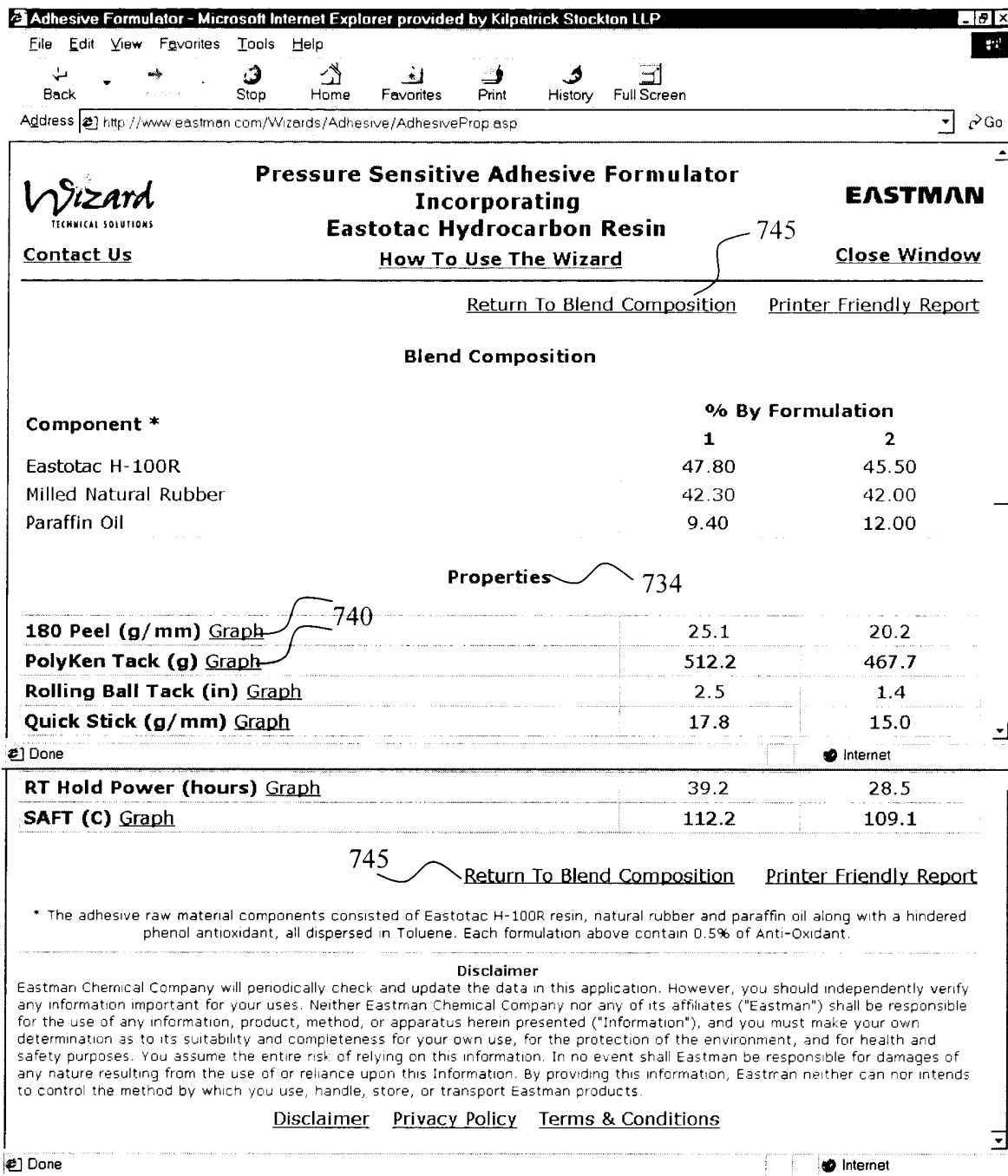


FIGURE 7D

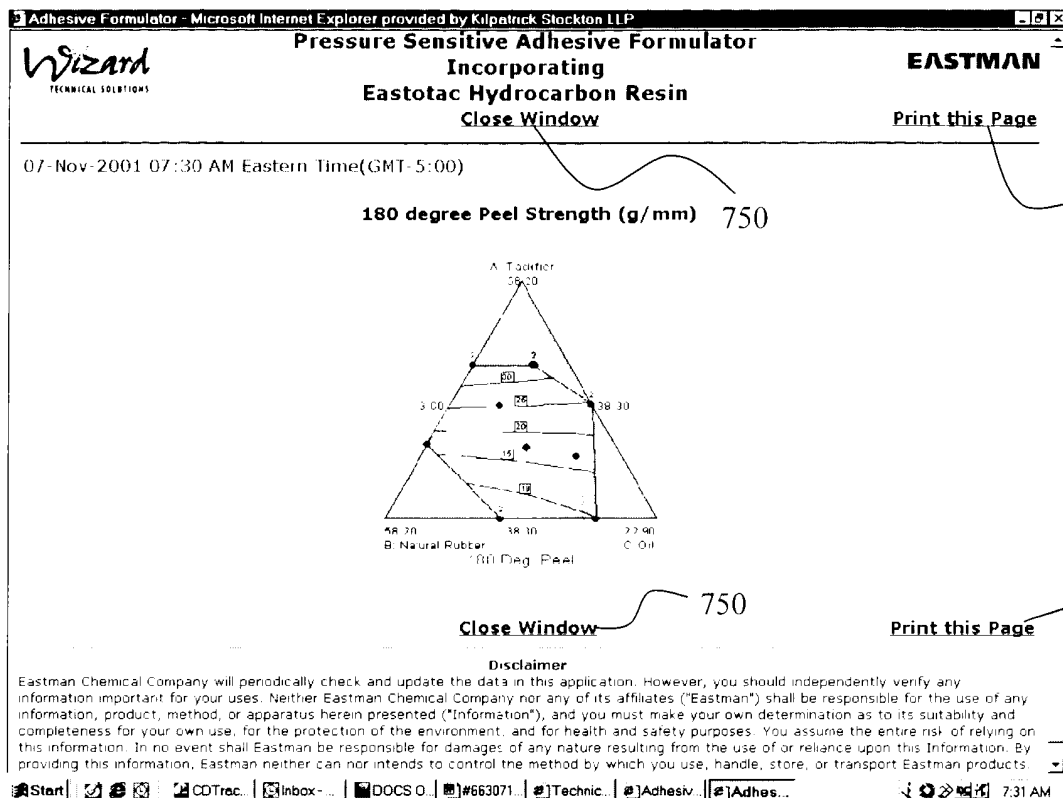


FIGURE 7E

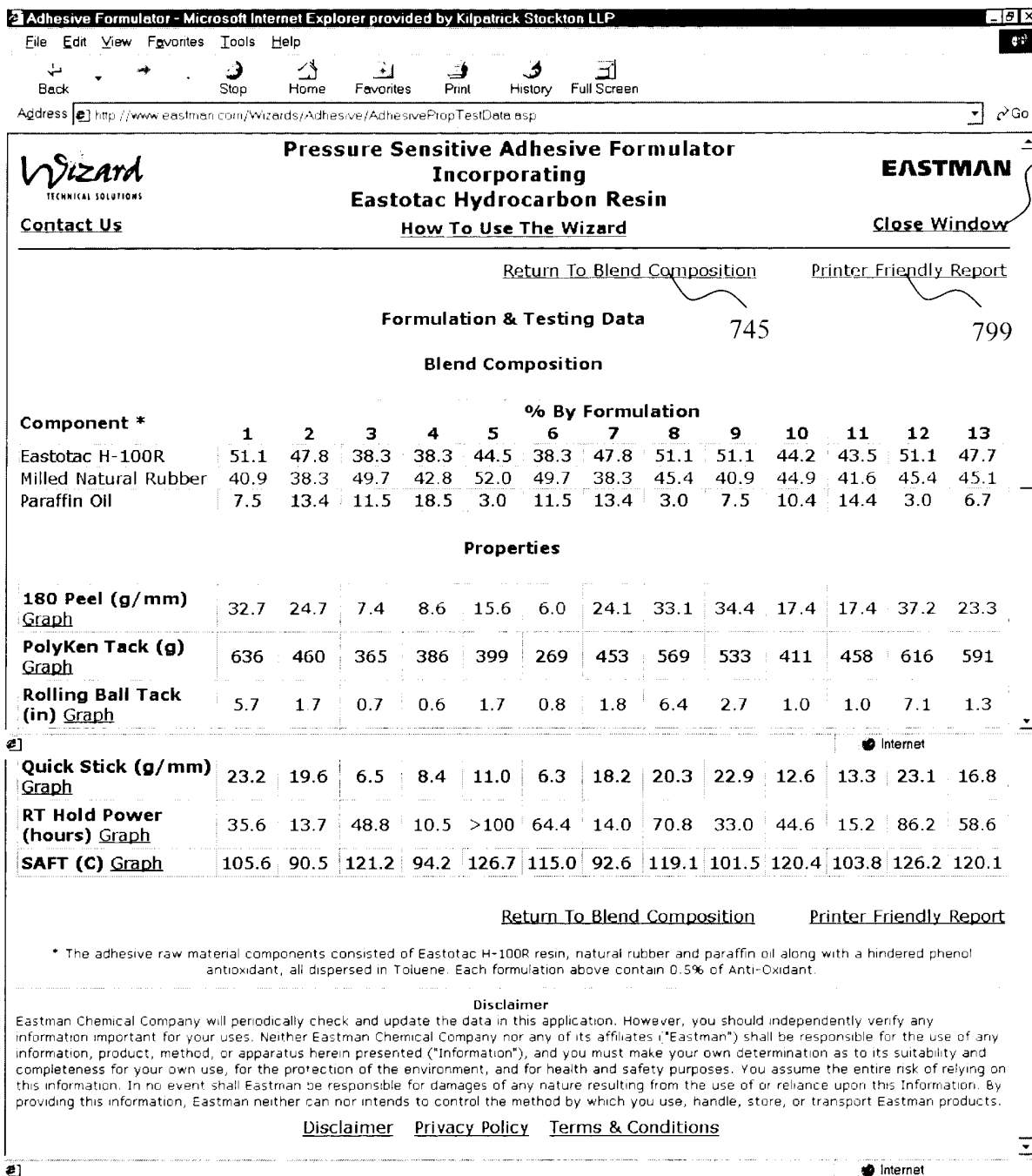


FIGURE 7F

Adhesive Formulator - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP



Pressure Sensitive Adhesive Formulator
 Incorporating
Eastotac Hydrocarbon Resin
 Close Window

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06-Nov-2001 8:00 PM Eastern Time(GMT-5:00)

793

752

Formulation & Testing Data

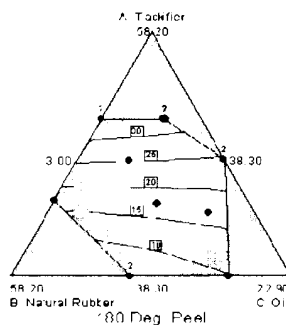
Blend Composition

Component *	% By Formulation												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Eastotac H-100R	51.1	47.8	38.3	38.3	44.5	38.3	47.8	51.1	51.1	44.2	43.5	51.1	47.7
Milled Natural Rubber	40.9	38.3	49.7	42.8	52.0	49.7	38.3	45.4	40.9	44.9	41.6	45.4	45.1
Paraffin Oil	7.5	13.4	11.5	18.5	3.0	11.5	13.4	3.0	7.5	10.4	14.4	3.0	6.7

Properties

180 Peel(g/mm)	32.7	24.7	7.4	8.6	15.6	6.0	24.1	33.1	34.4	17.4	17.4	37.2	23.3
PolyKen Tack (g)	636	460	365	386	399	269	453	569	533	411	458	616	591
Rolling Ball Tack (in)	5.7	1.7	0.7	0.6	1.7	0.8	1.8	6.4	2.7	1.0	1.0	7.1	1.3
Quick Stick (g/mm)	23.2	19.6	6.5	8.4	11.0	6.3	18.2	20.3	22.9	12.6	13.3	23.1	16.8
RT Hold Power (hours)	35.6	13.7	48.8	10.5	>100	64.4	14.0	70.8	33.0	44.6	15.2	86.2	58.6
SAFT (C)	105.6	90.5	121.2	94.2	126.7	115.0	92.6	119.1	101.5	120.4	103.8	126.2	120.1

180 Peel(g/mm)



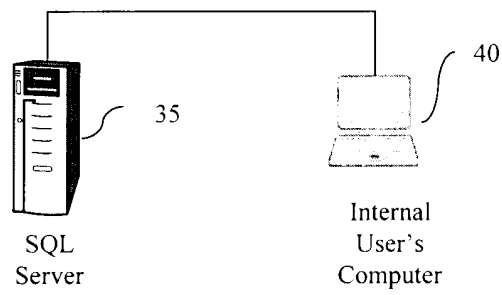


FIG. 8

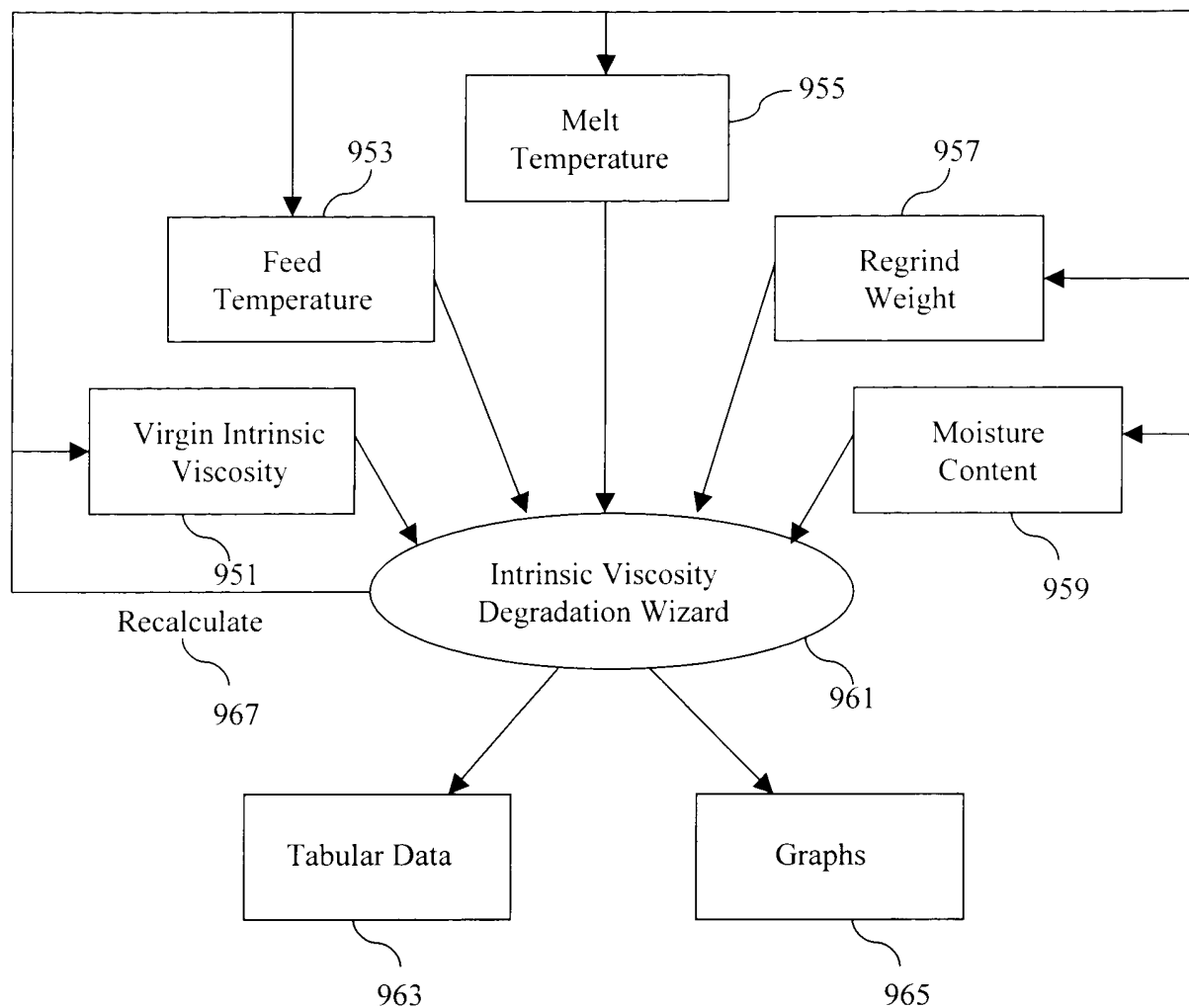


FIGURE 9A

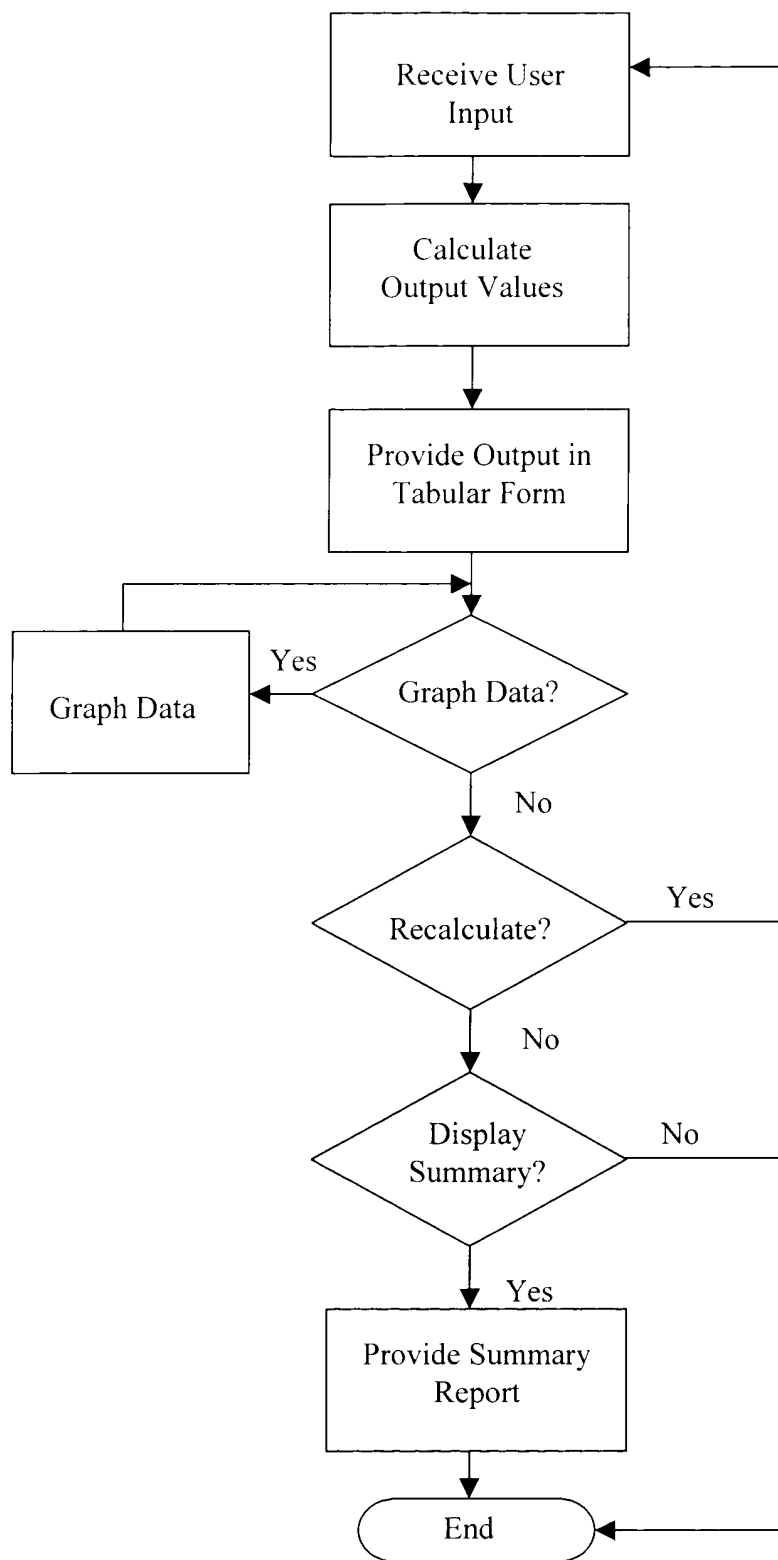


FIGURE 9B

Intrinsic Viscosity Degradation Model For Eastapak PET - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

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Address <http://www.eastman.com/Wizards/IVDegradation/IVDegradelinputs.asp> Go

Wizard TECHNICAL SOLUTIONS **Intrinsic Viscosity Degradation Model For Eastapak PET** **EASTMAN**

[Contact Us](#) [How To Use The Wizard](#) [Close Window](#)

***=Required Field**

Input Parameters:

Virgin Resin Intrinsic Viscosity: * 1.00 dl/g

Pellet Feed Temperature: * 30 °C

Melt Temperature: * 275 °C

Virgin Resin Moisture Content: * .005 wt%

Regrind Ratio: * 5 wt%

Regrind Moisture: * .007 wt%

[Calculate](#)

Intrinsic Viscosity:

Intrinsic Viscosity before Pass 1: 0.000 dl/g

[Click here for the Conversion Table](#)

Predicted Effect on Intrinsic Viscosity

Click the appropriate link to view the graph

[a. Regrind Effect](#)

[b. Virgin Resin Intrinsic Viscosity Effect](#)

[c. Melt Temperature Effect](#)

[d. Feed Temperature Effect](#)

[e. Passes Graph](#)

[f. Regrind Moisture Effect](#)

[g. Virgin Resin Moisture Effect](#)

Passes Detail:

Passes	Intrinsic Viscosity
Pass 1	0.000
Pass 2	0.000
Pass 3	0.000
Pass 4	0.000
Pass 5	0.000
Pass 6	0.000
Pass 7	0.000
Pass 8	0.000

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FIGURE 9C

Intrinsic Viscosity Degradation Model For Eastapak PET - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

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Address <http://www.eastman.com/Wizards/IV/Degradation/IVDegradInputs.asp> Go



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Intrinsic Viscosity Degradation Model For Eastapak PET

How To Use The Wizard

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900

***=Required Field** [Printer Friendly Report](#)

Input Parameters:

Virgin Resin Intrinsic Viscosity: * dl/g

Pellet Feed Temperature: * °C

Melt Temperature: * °C

Virgin Resin Moisture Content: * wt%

Regrind Ratio: * wt%

Regrind Moisture: * wt%

[Recalculate](#)

HELP?

Predicted Effect on Intrinsic Viscosity

Click the appropriate link to view the graph **HELP?**

- 920
- 921 a. [Regrind Effect](#)
- 922 b. [Virgin Resin Intrinsic Viscosity Effect](#)
- 923 c. [Melt Temperature Effect](#)
- 924 d. [Feed Temperature Effect](#)
- 925 e. [Passes Graph](#)
- 926 f. [Regrind Moisture Effect](#)
- g. [Virgin Resin Moisture Effect](#)

960

Intrinsic Viscosity:

Intrinsic Viscosity before Pass 1: 0.930 dl/g

Click [here](#) for the Conversion Table

907B

Passes Detail:

Passes	Intrinsic Viscosity
Pass 1	0.926
Pass 2	0.926
Pass 3	0.926
Pass 4	0.926
Pass 5	0.926
Pass 6	0.926
Internet	
Pass 7	0.926
Pass 8	0.926

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999

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FIGURE 9D

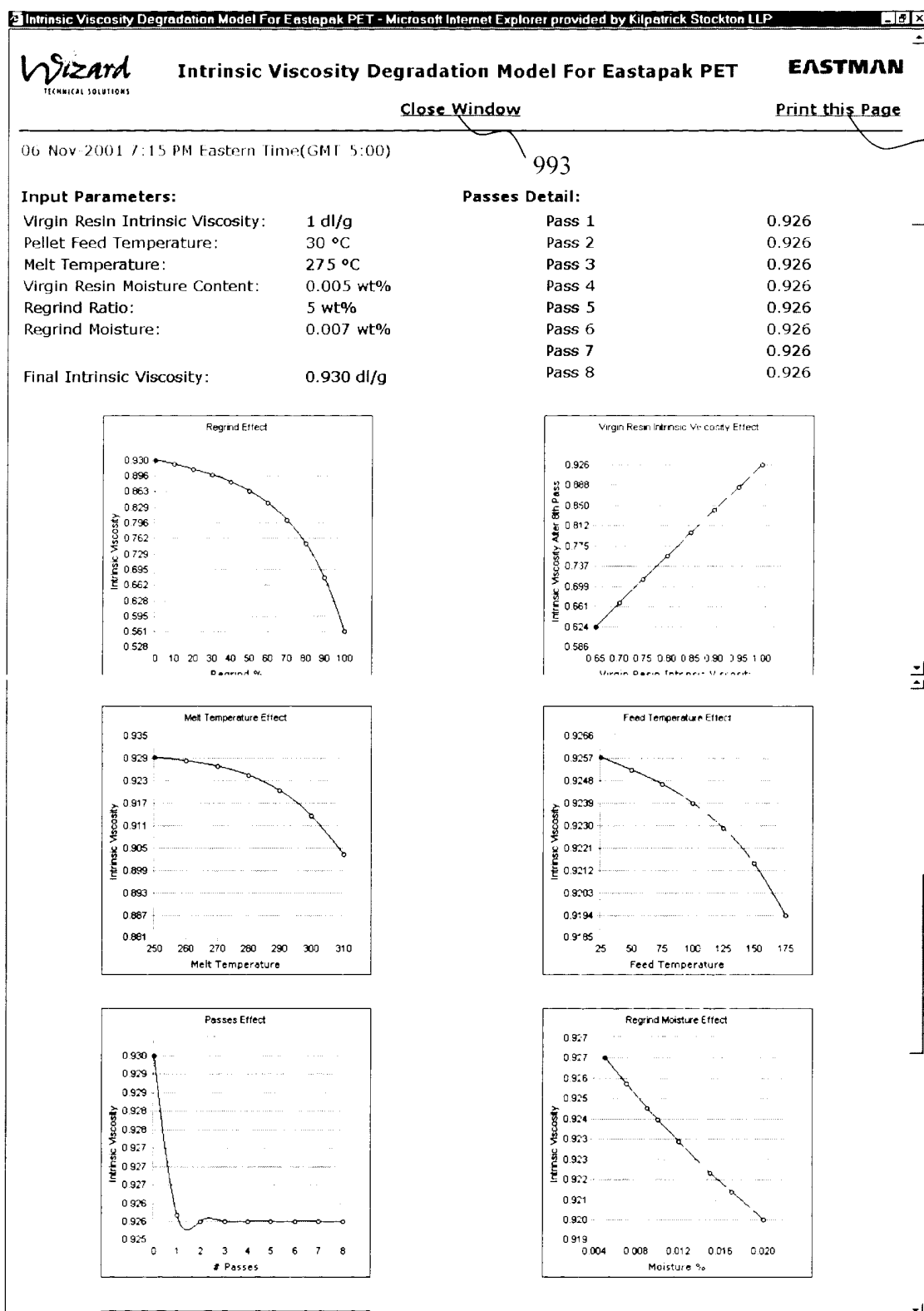


FIGURE 9E

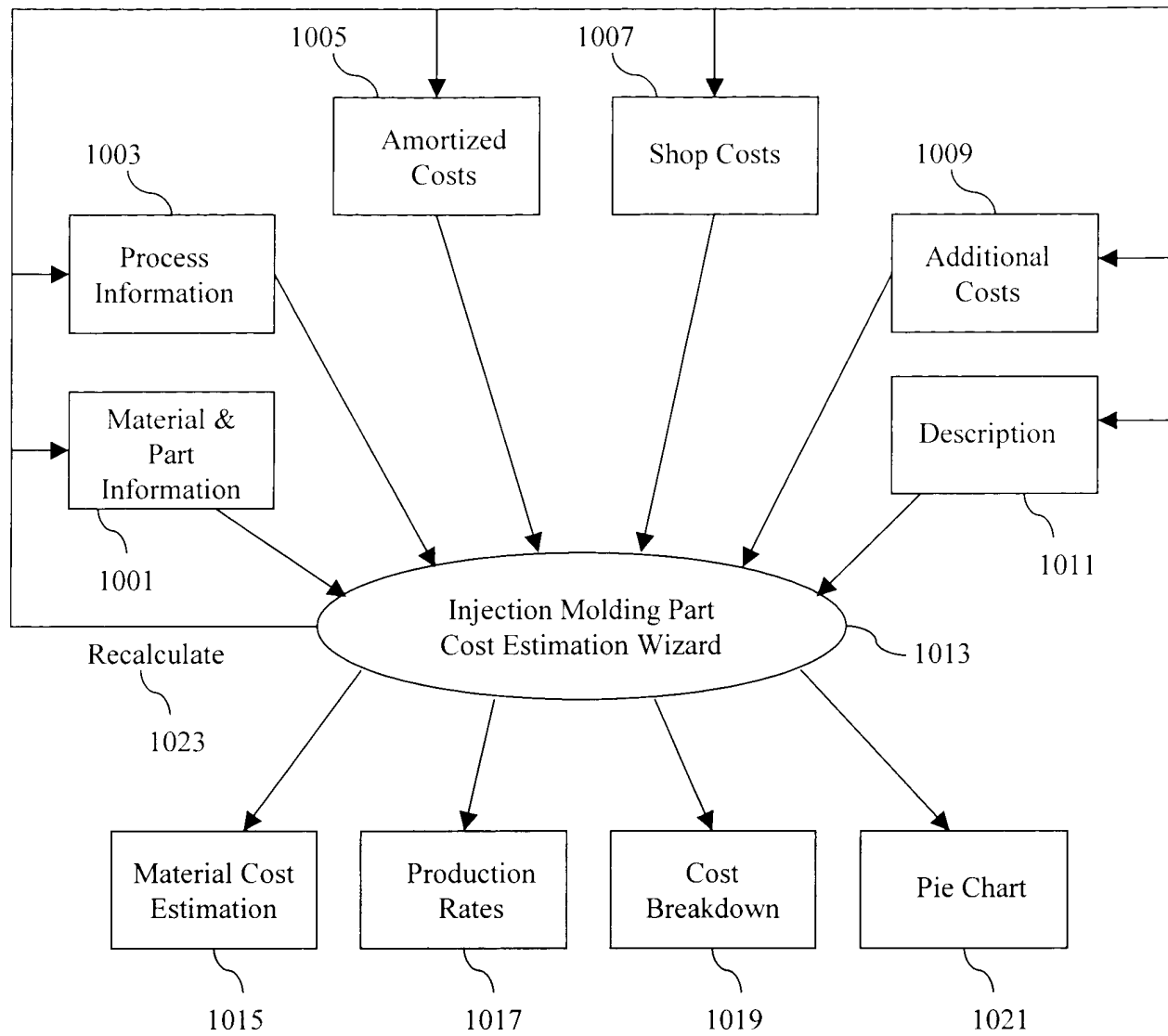


FIGURE 10A

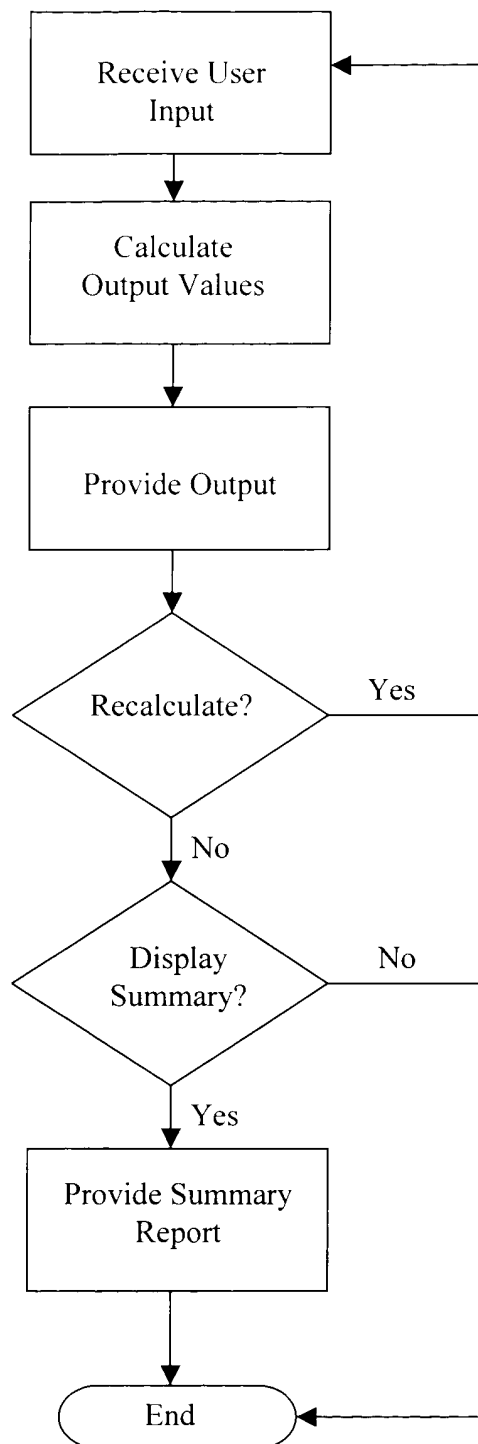



FIGURE 10B

Injection Molding Part Cost Estimation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

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Injection Molding Part Cost Estimation

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***=Required Field**

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Input Values

Descriptions

Company:

Name of part:

Description:

Material:

Preferred Currency:

Predicted Values

Material Cost Estimations:

Material Cost per Part:

Virgin Material Use Rate:

Material Cost per Acceptable Part:

Production Rates:

Gross Production Rate:

Rejected Parts:

Acceptable Parts Prod. Rate:

Annual Production Rate:

Material and Part Information

Part Mass: * (mass for 1 part only)

Runner Mass: * (enter 0 if hot runner system or if reground)

Material Cost: *

Process Information

Number Of Cavities: *

Estimated Cycle Time: *

Reject Rate: *

% of Rejects Reground: *

Amortized Costs

Equipment Costs: *

Equipment Amortization Time: *

Mold Cost: *

Mold Amortization Time: *

Shop Costs

Cost Breakdown:

Material:

Operating (Press) Costs:

Amortized Costs:

Additional Costs:

Total Part Cost:

FIGURE 10C

Injection Molding Part Cost Estimation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

File Edit View Favorites Tools Help

Stop Home Favorites Print History Full Screen

Address <http://www.eastman.com/Wizards/PartCostEstimator/PartCostEstimator.asp> Go

(For U.S. only) [click here](#) to get the rate information 1060

Operating hours per week: * hours 1026

Project Down Time: * 1028

Machine Cost: * per hour 1030

Additional Cost

Secondary Operations: * per part 1032

Overhead Expenses: * per part 1034

Miscellaneous Expenses: * per part 1036

[HELP?](#)

[Calculate](#) 1050

[Printer Friendly Report](#) 1099

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Internet

FIGURE 10D

Injection Molding Part Cost Estimation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

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Back Stop Home Favorites Print History Full Screen

Address <http://www.eastman.com/Wizards/PartCostEstimator/PartCostEstimator.asp?FirstLoad=Yes&Curr=US&CalcType=ReCalc> Go

Wizard **Injection Molding Part Cost Estimation** **EASTMAN**

[Contact Us](#) [How To Use The Wizard](#) [Close Window](#)

***=Required Field** [Printer Friendly Report](#)

Input Values

Descriptions [HELP?](#)

Company:

Name of part:

Description:

Material:

Preferred Currency:

Predicted Values

Material Cost Estimations: [HELP?](#)

Material Cost per Part: 50.00 US per 1000 parts

Virgin Material Use Rate: 5.13 kilograms per hour

Material Cost per Acceptable Part: 52.78 US per 1000 parts

Material and Part Information [HELP?](#)

Part Mass: * (mass for 1 part only)

Runner Mass: * (enter 0 if hot runner system or if reground)

Production Rates: [HELP?](#)

Gross Production Rate: 108.00 parts per hour

Rejected Parts: 10.80 parts per hour

Material Cost: *

[Recalculate](#)

Process Information [HELP?](#)

Number Of Cavities: *

Estimated Cycle Time: * Seconds

Reject Rate: *

% of Rejects Reground: *

[Recalculate](#)

Amortized Costs [HELP?](#)

Equipment Costs: * US

Equipment Amortization Time: * Years

Mold Cost: * US

Mold Amortization Time: * Years

Acceptable Parts Prod. Rate: 97.20 parts per hour

Annual Production Rate: 202,731 43 parts per year

Cost Breakdown: [HELP?](#)

Material: 52.78 US per 1000 parts

Operating (Press) Costs: 514.40 US per 1000 parts

Amortized Costs: 73.99 US per 1000 parts

Additional Costs: 110.00 US per 1000 parts

Total Part Cost: 751.17 US per 1000 parts

FIGURE 10E

Injection Molding Part Cost Estimation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

Wizard TECHNICAL SOLUTIONS **Injection Molding Part Cost Estimation** **EASTMAN**

Close Window 1093 Print this Page 1040

06 Nov 2001 7:28 PM Eastern Time(GMT-5:00)

Input Values

Descriptions

Company: ABC
Name of part: Description
Material: Plastic
Preferred Currency: US

Material and Part Information

Part Mass: 50 grams
Runner Mass: 0 grams
Material Cost: 1 US per kilogram

Process Information

Number Of Cavities: 1
Estimated Cycle Time: 30 Seconds
Reject Rate: 10 %
% of Rejects Reground: 50 %

Amortized Costs

Equipment Costs: 100000 US
Equipment Amortization Time: 10 Years
Mold Cost: 10000 US
Mold Amortization Time: 2 Years

Shop Costs

Operating hours per week: 40
Project Down Time: 10 %
Machine Cost: 50 US per hour

Additional Cost

Secondary Operations: 2 US per part
Overhead Expenses: 4 US per part
Miscellaneous Expenses: 5 US per part

Predicted Values

Material Cost Estimations:

Material Cost per Part: 50.00 US per 1000 parts
Virgin Material Use Rate: 5.13 kilograms per hour
Material Cost per Acceptable Part: 52.78 US per 1000 parts

Production Rates:

Gross Production Rate: 108.00 parts per hour
Rejected Parts: 10.80 parts per hour
Acceptable Parts Prod. Rate: 97.20 parts per hour
Annual Production Rate: 202,731.43 per 1000 parts

Cost Breakdown:

Material: 52.78 US per 1000 parts
Operating (Press) Costs: 514.40 US per 1000 parts
Amortized Costs: 73.99 US per 1000 parts
Additional Costs: 110.00 US per 1000 parts
Total Part Cost: 751.17 US per 1000 parts

Total Cost Predicted

Material Cost - 7.0264%
Amortized Cost - 9.8500%
Operating Cost - 68.4798%
Additional Cost - 14.6438%

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FIGURE 10F

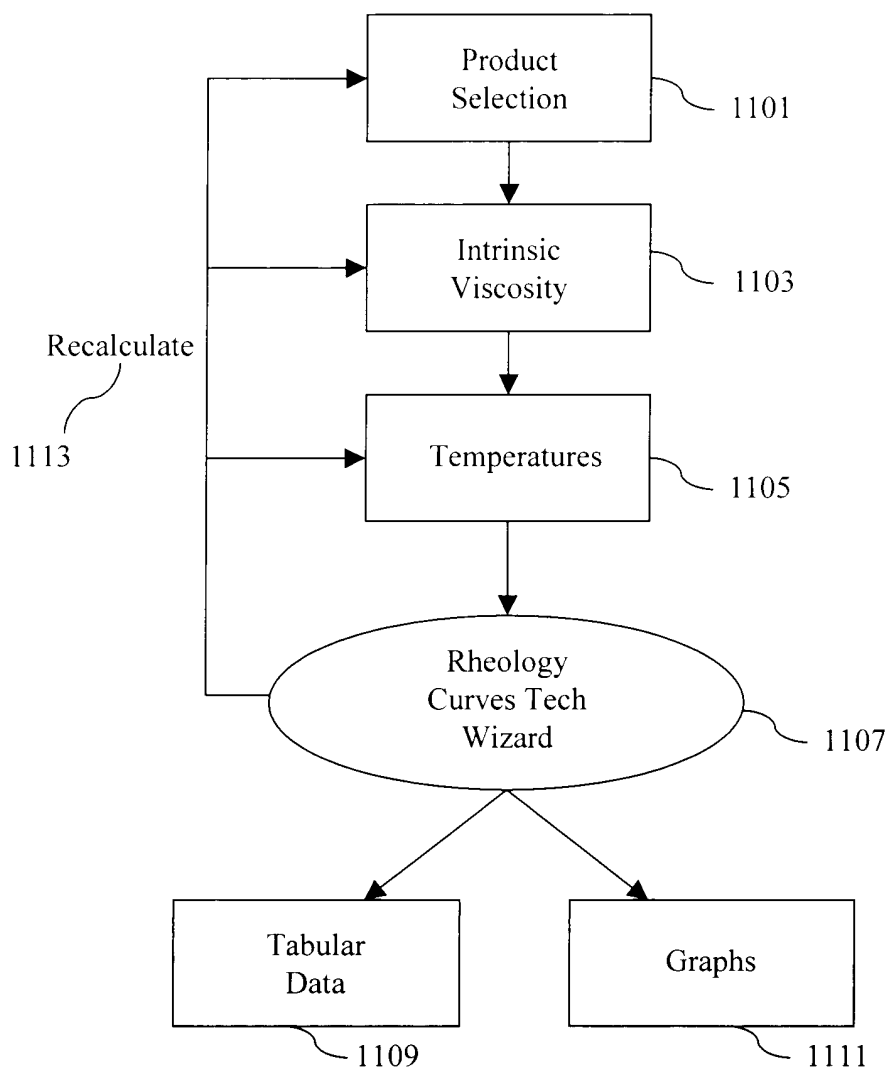


FIGURE 11A

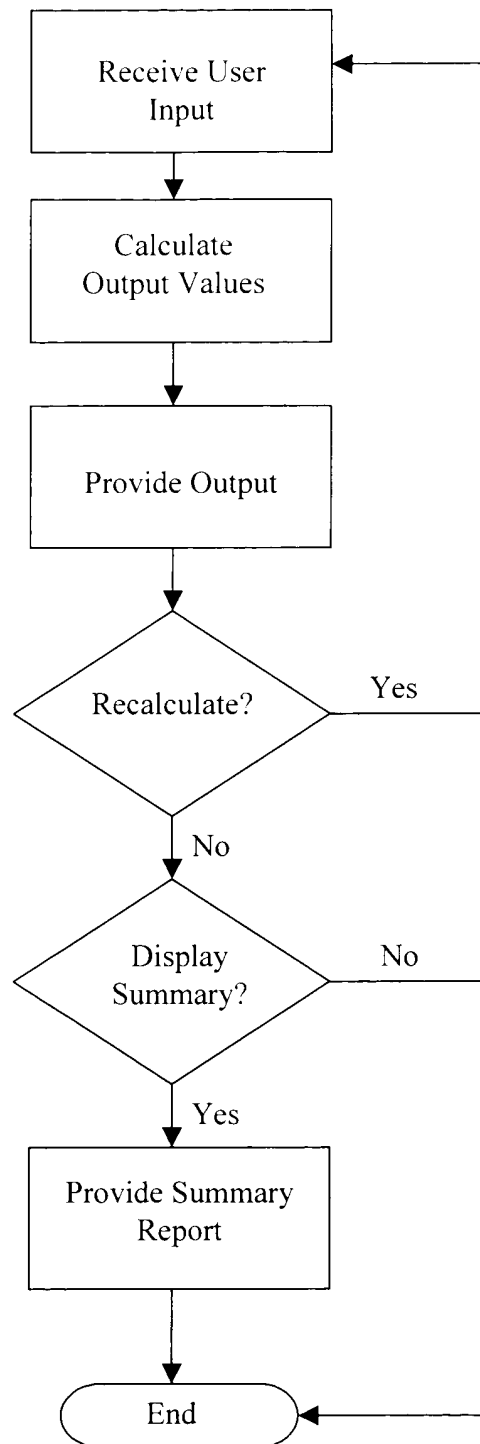


FIGURE 11B

Rheology Curves and Data - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

File Edit View Favorites Tools Help

Stop Home Favorites Print History Full Screen

Address http://www.eastman.com/Wizards/RheologyCurves/RheologyMain.asp Go

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Rheology Curves and Data 1100

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How To Use The Wizard 1112

Close Window 1193

*=Required Field

Product Group: * 1102

Product: * 1104

Click here to Continue 1106

Disclaimer 1106

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Done Internet

FIGURE 11C

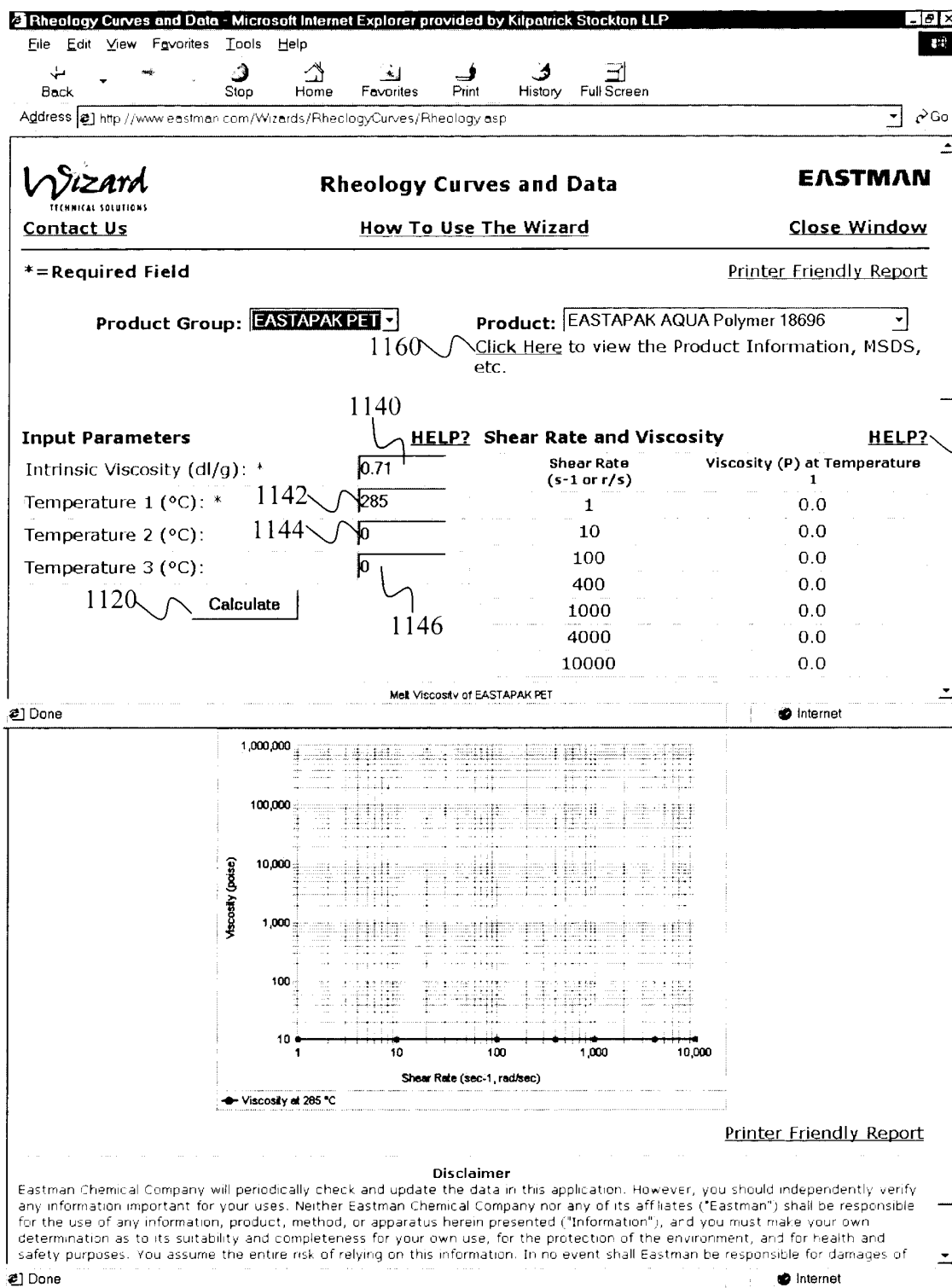


FIGURE 11D

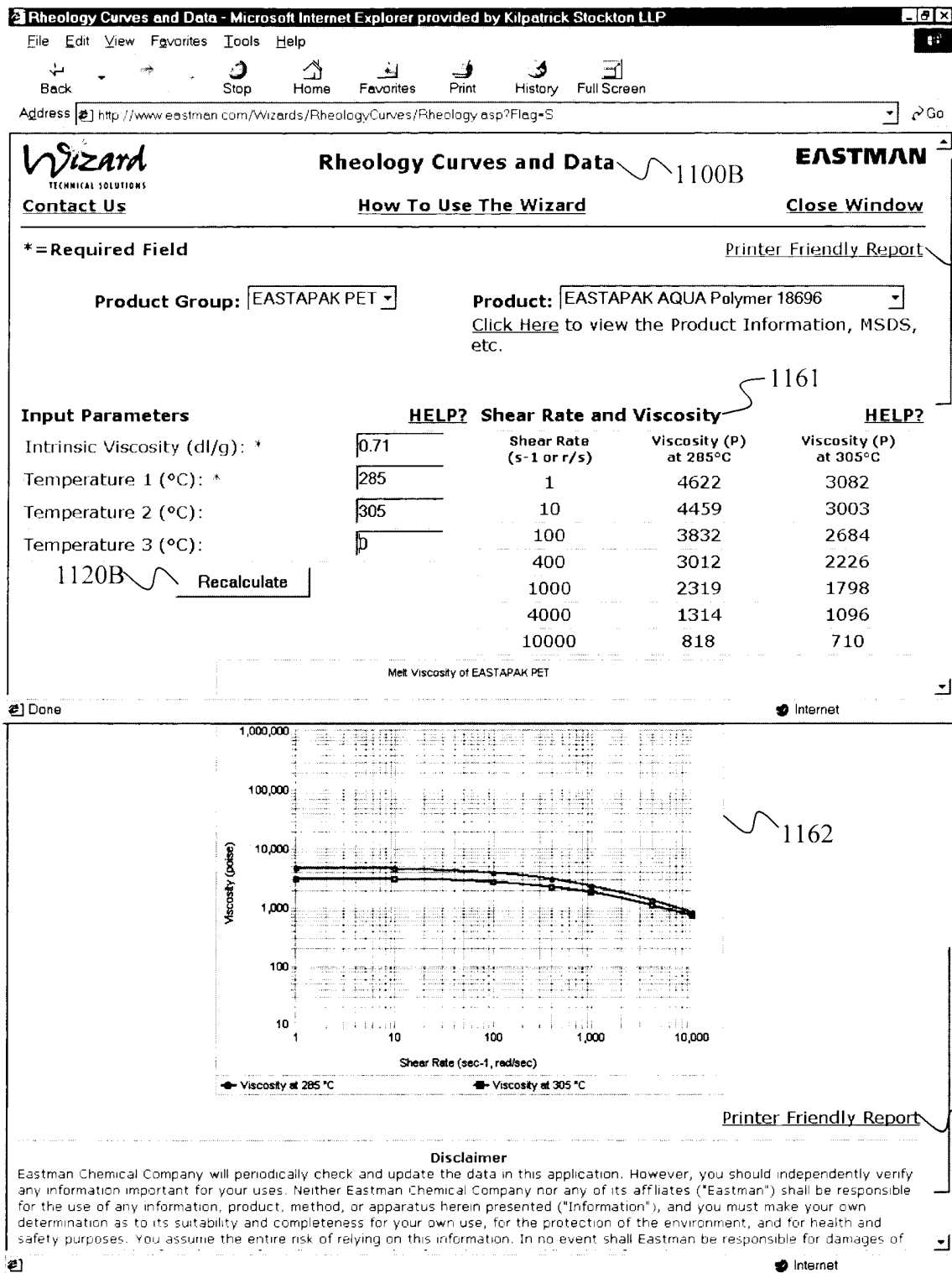


FIGURE 11E

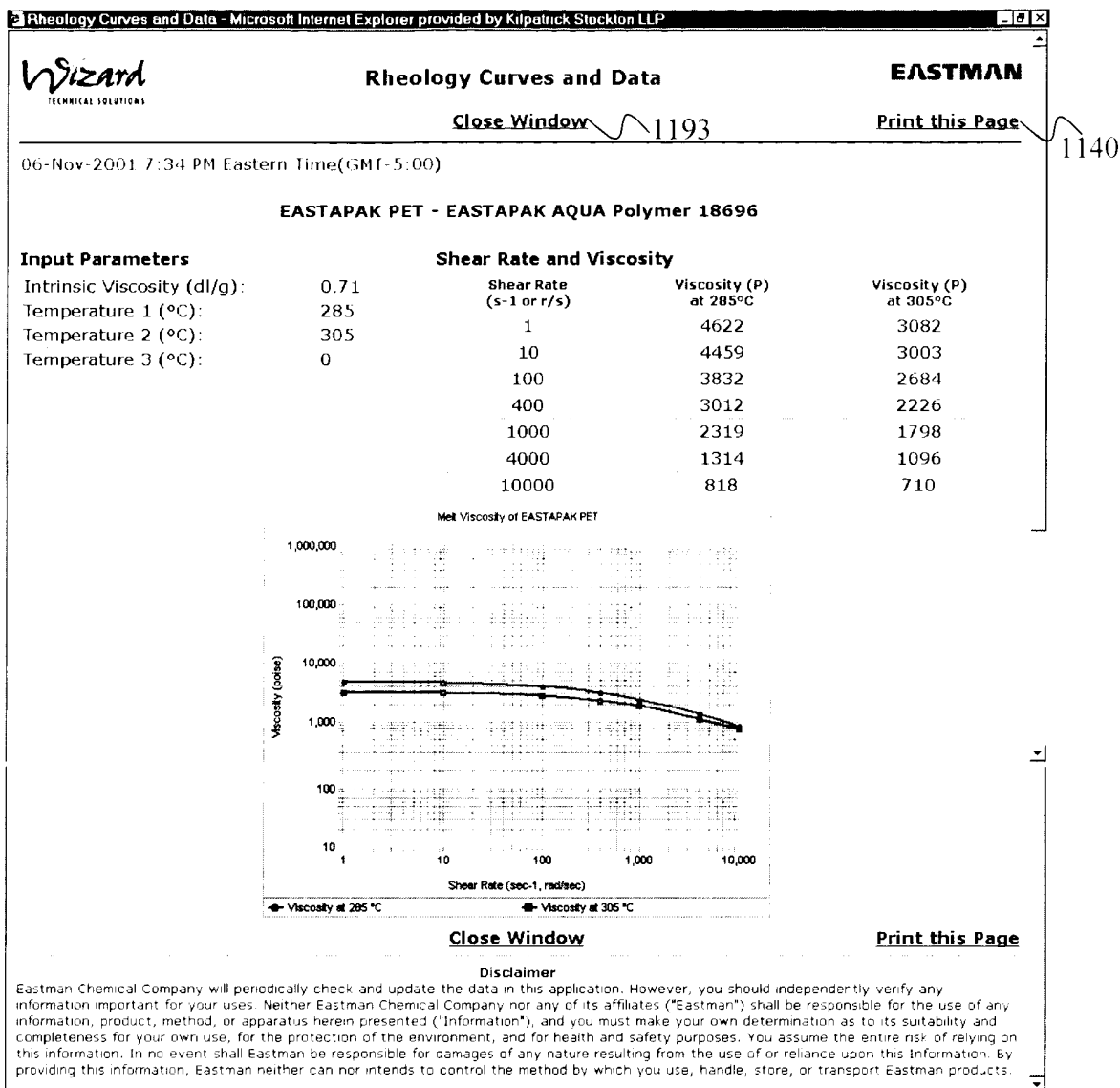


FIGURE 11F

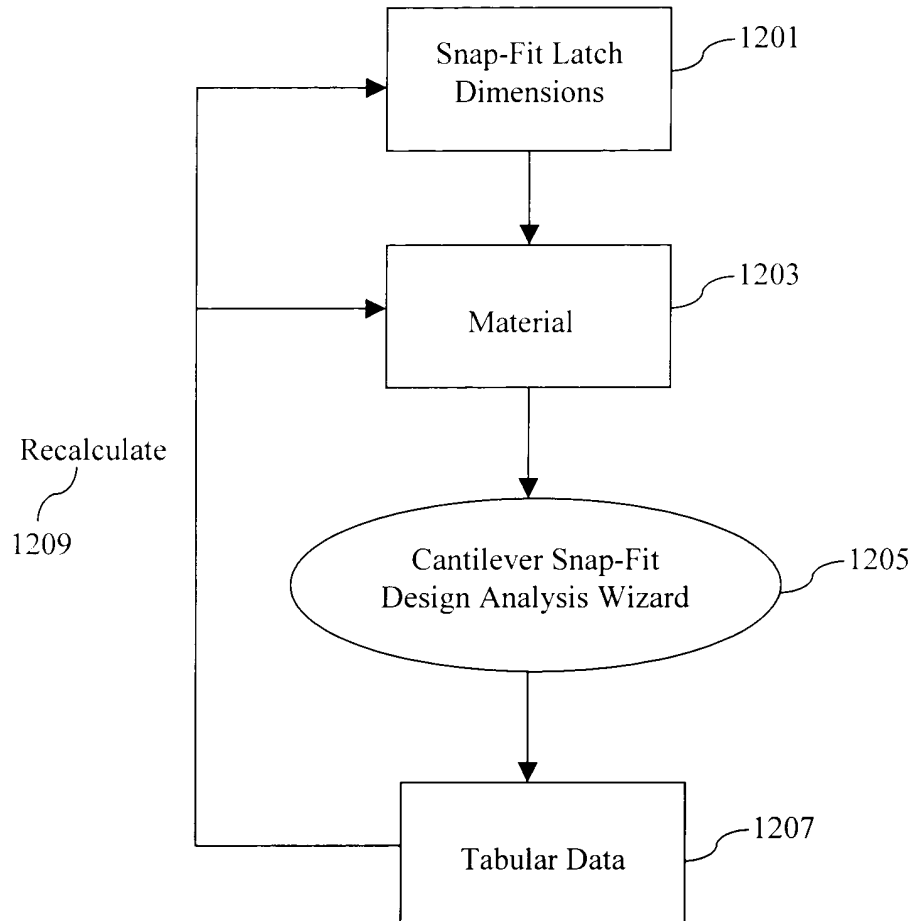


FIGURE 12A

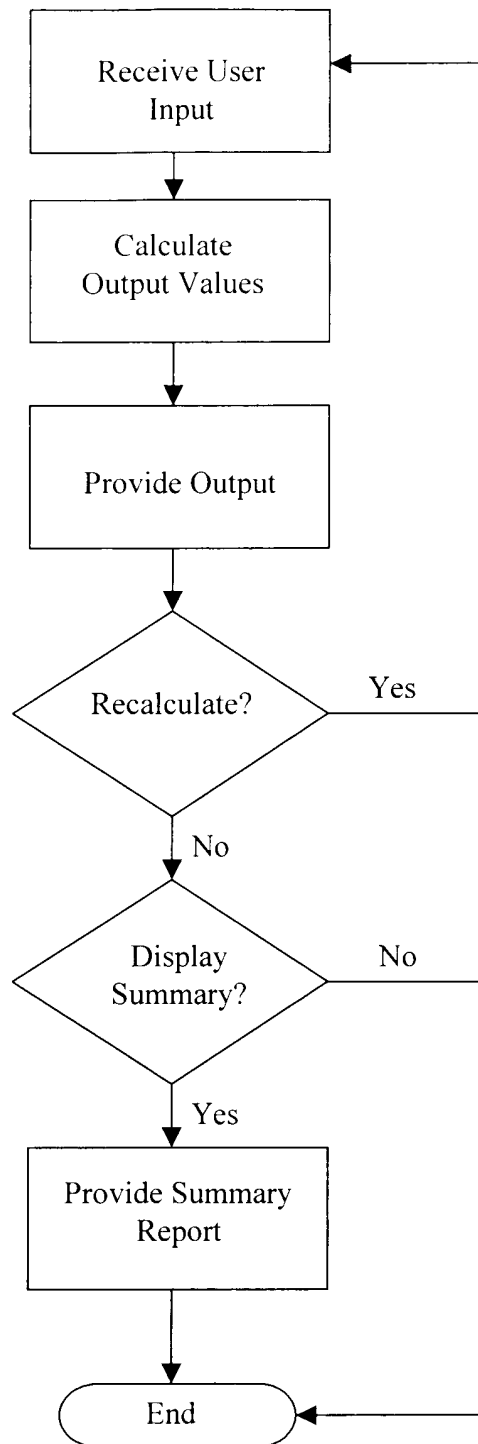


FIGURE 12B



FIGURE 12C

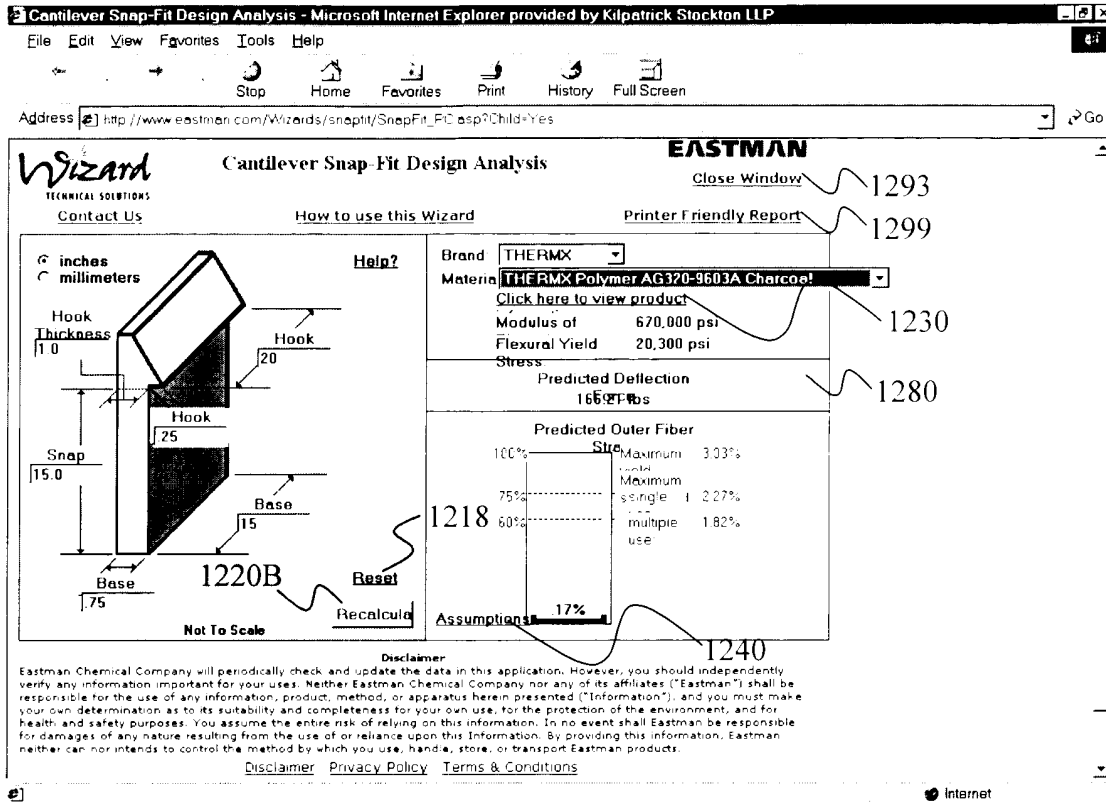


FIGURE 12D

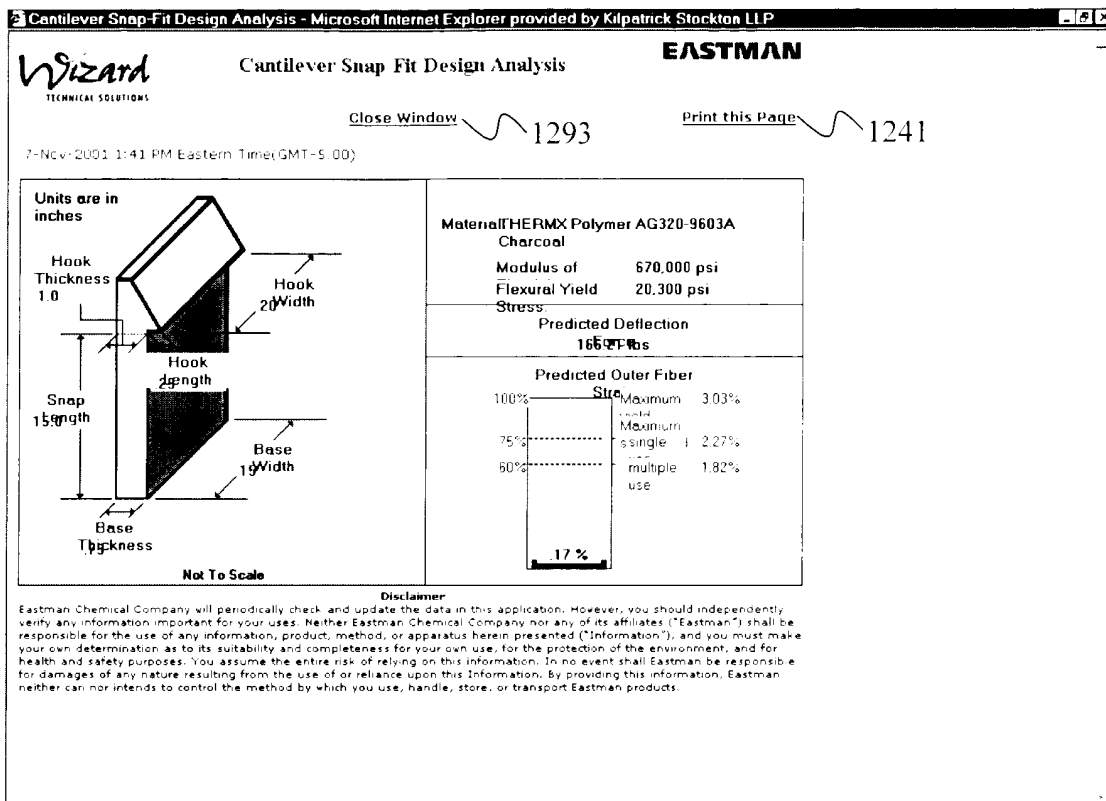


FIGURE 12E

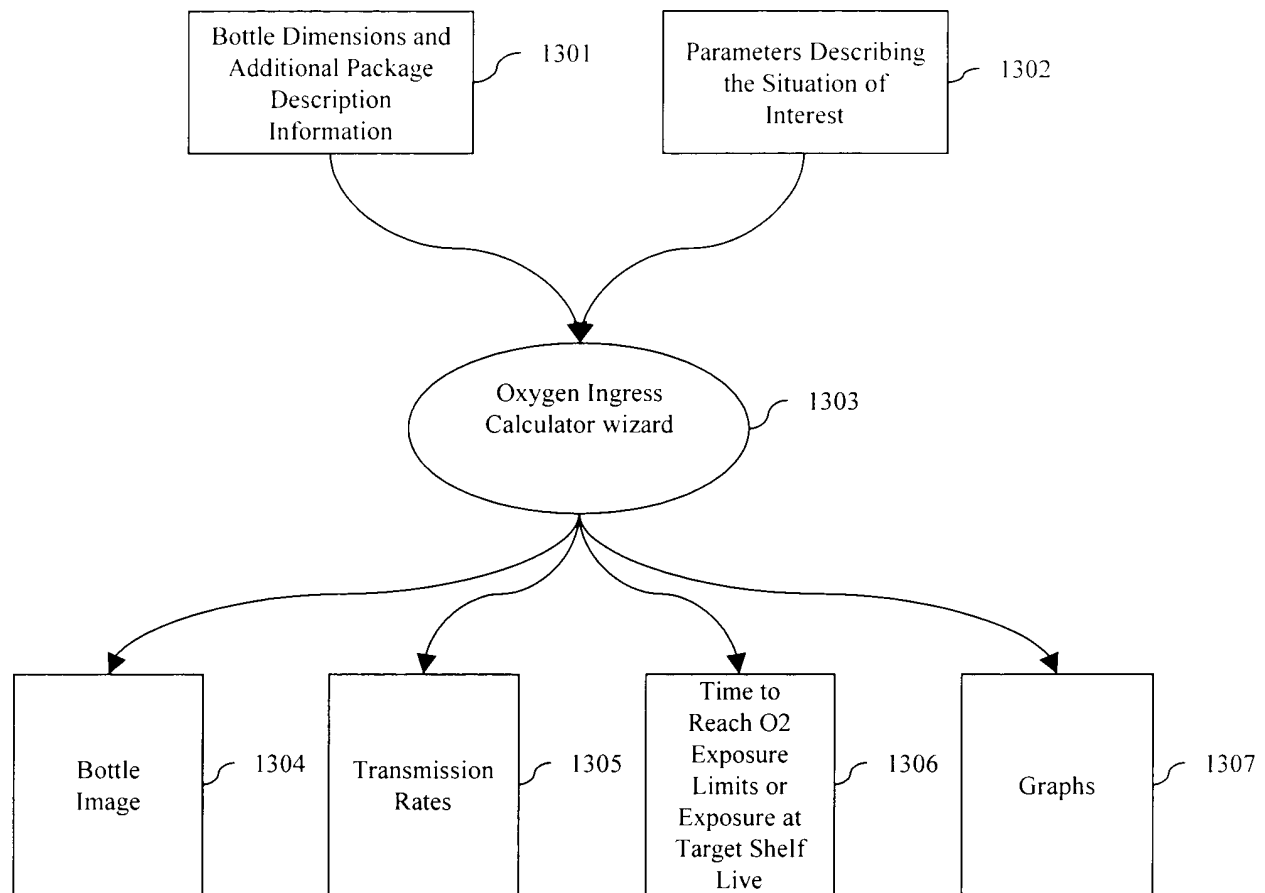


FIG. 13A

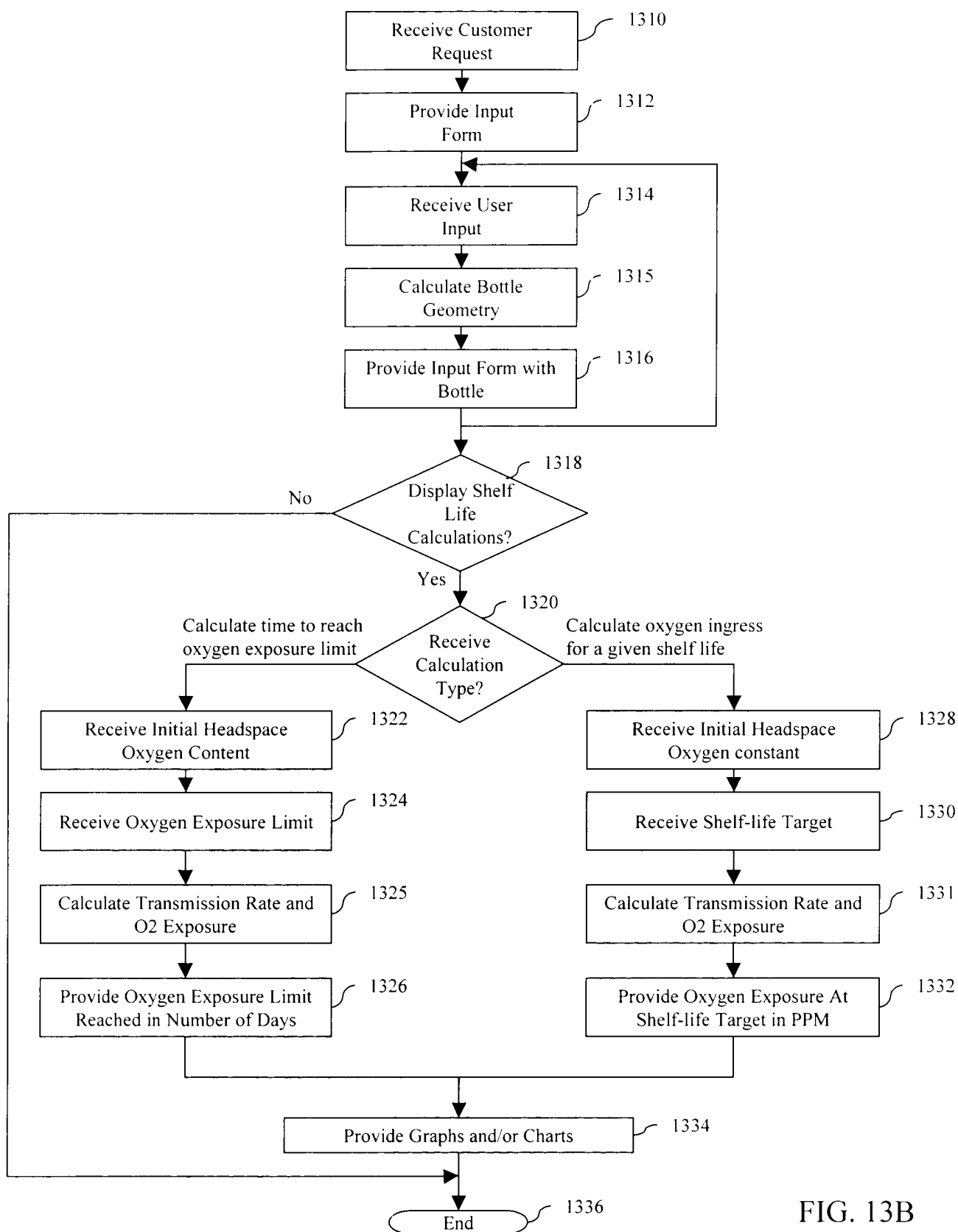



FIG. 13B



Oxygen Ingress Calculator for PET Monolayer Containers
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How To Use The Wizard

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[Close Window](#)

***=Required Field**

Container Specifications

Container Volume: * 500 ml

Container Type: * Select Container Type

Headspace Volume: ml

Container Weight: * 25.9 grams

Diameter: * 69.5 mm

Sidewall Ht/Shoulder Ht: * 2

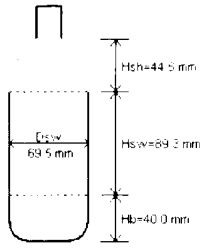
Finish Diameter: * Select Finish Diameter

Closure Type: * Select Closure Type

1356 Draw Bottle

Click [here](#) for Conversion Table

1354



Dsw = Diameter of Sidewall; Hb=Height of Base Hsw=Height of Sidewall; Hsh=Height of Shoulder

1357

[Assumptions](#) [Click here for Shelf Life Calculations](#)

☒ Internet zone

FIG. 13C

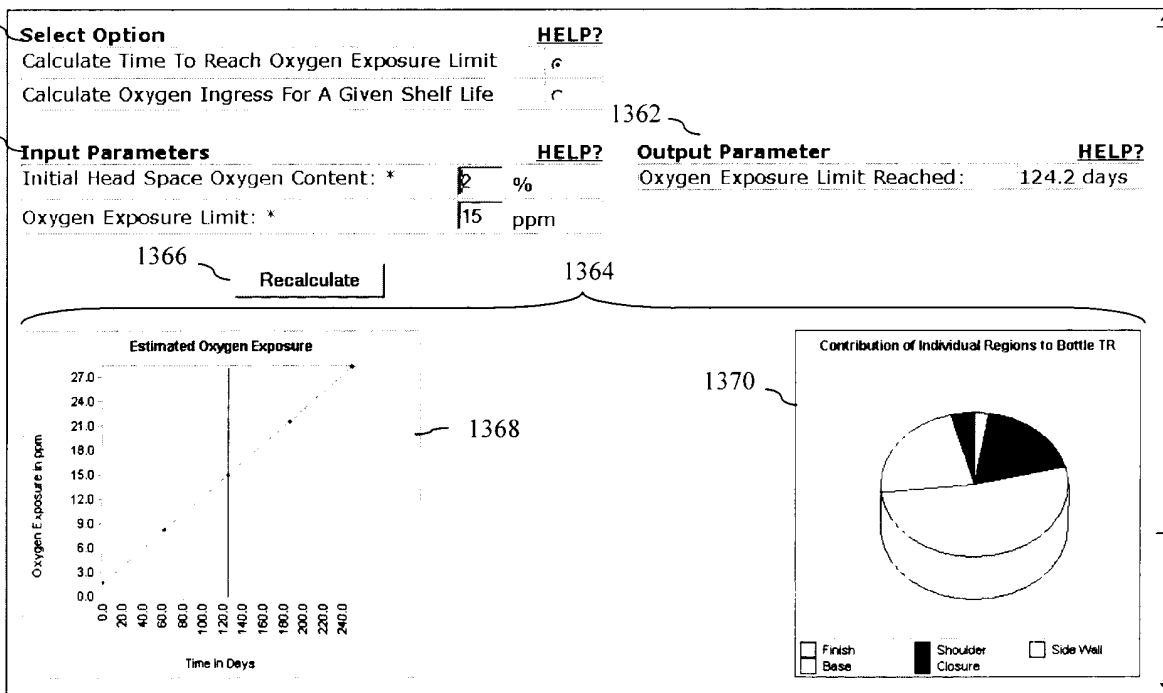


FIG. 13D

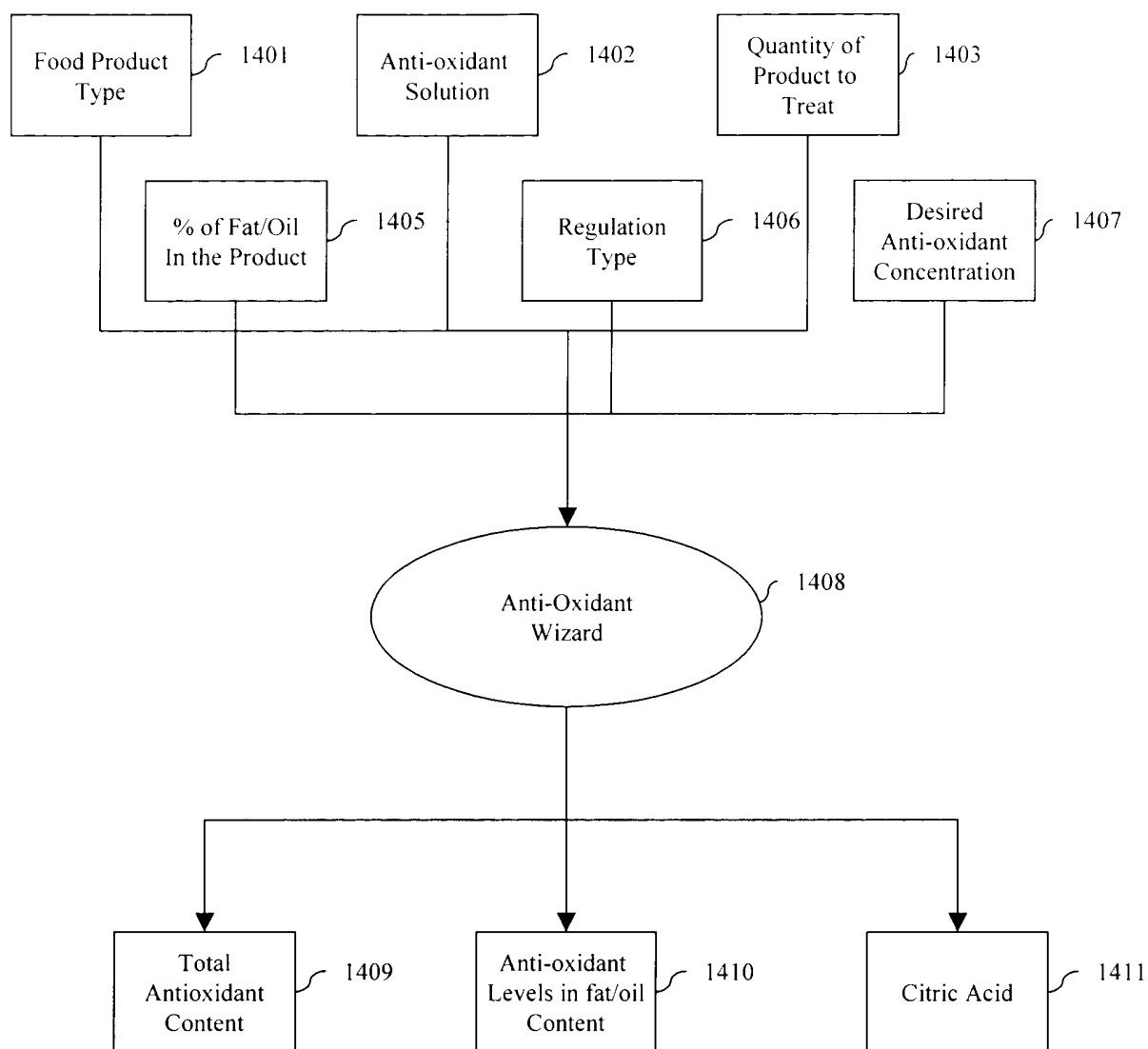


FIG. 14A

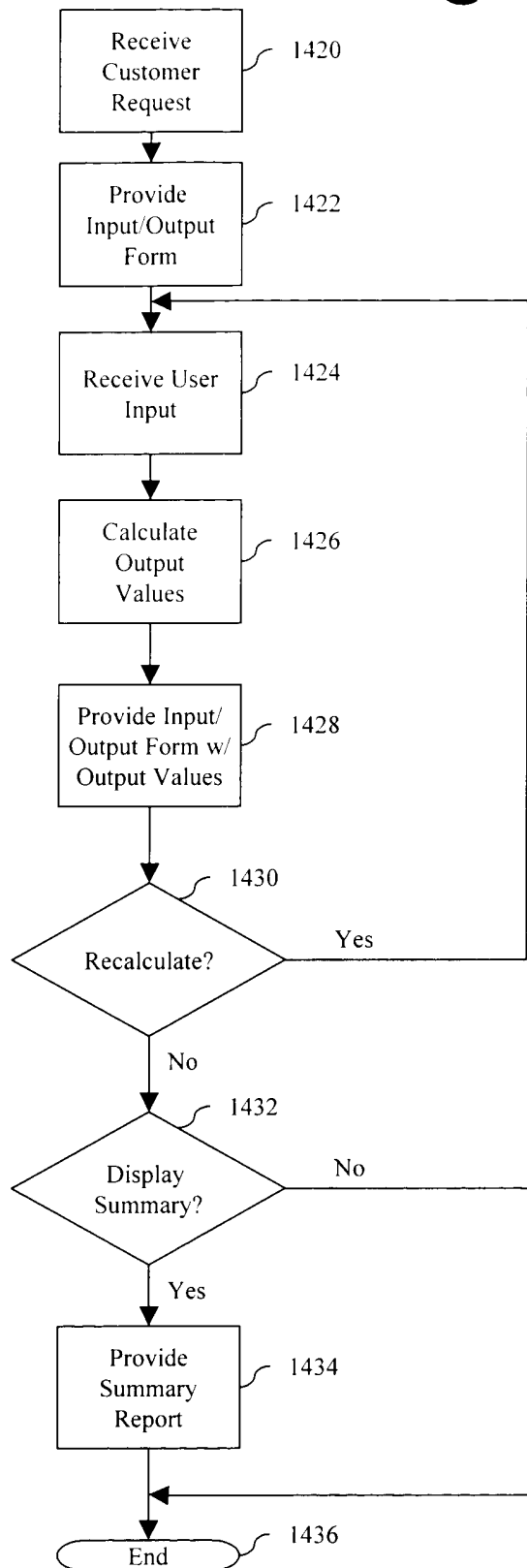


FIG. 14B


Antioxidant Calculator - Microsoft Internet Explorer

File Edit View Go Favorites Help

Stop Refresh Home Search Favorites History Channels Fullscreen Mail Print

Address <http://eastmen/Wizards/Prototype/AntiOxidant/AntiOxiMain.asp>

Search ...attempting to connect to Yahoo!...



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Antioxidant Calculator

[How To Use The Wizard](#)

EASTMAN

[Close Window](#)

* = Required Field [Click here to see a listing of Recommended Tenox Products](#) for various Applications

Input Parameters	HELP?	Antioxidant levels in fat/oil content
Food Product: *	<input type="text"/>	BHA
Tenox Product to be used: *	Select One	BHT
Quantity of Food Product to treat: *	1000	TBHQ
Weight units: *	Select One	Propyl Gallate
Fat/oil percentage in food product: *	100 %	Total Antioxidant Level
Regulation to be used: *	FDA	Citric Acid
Total Antioxidant Concentration desired: *	<input type="text"/> ppm	Amount of Tenox 6 to apply:
Do you wish to convert the Antioxidant weight to volume: *	<input type="radio"/> Yes <input type="radio"/> No	

Done Local intranet zone

FIG. 14C

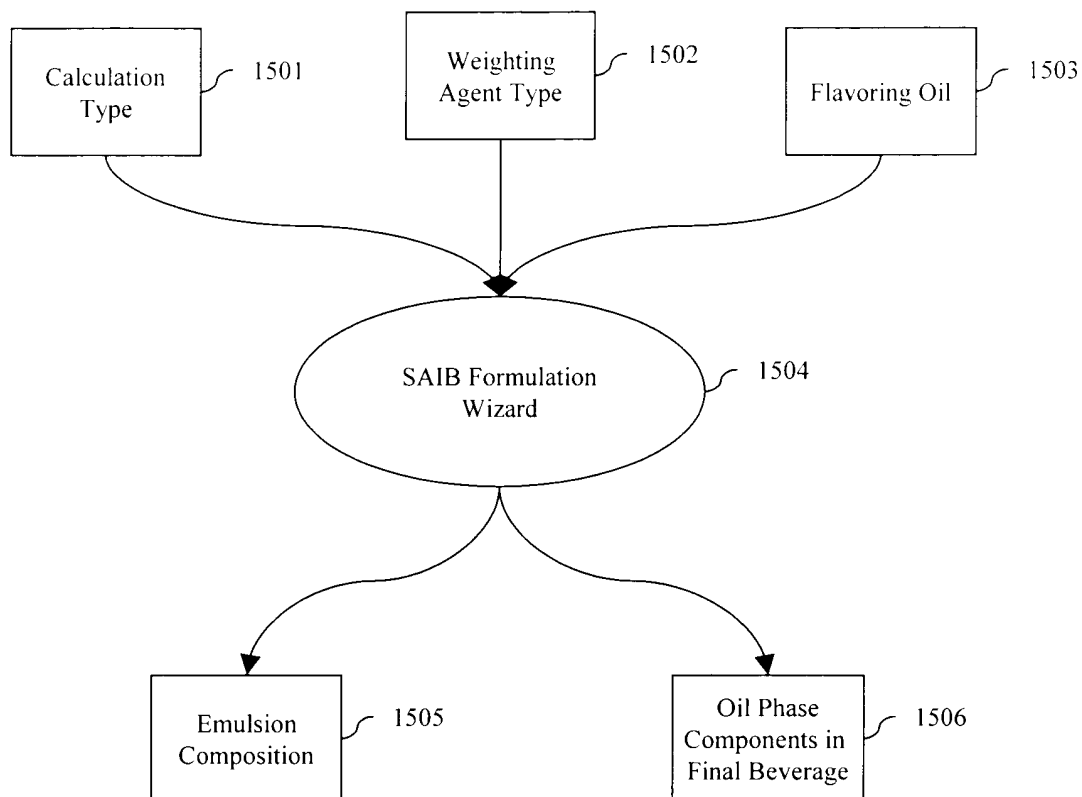


FIG. 15A

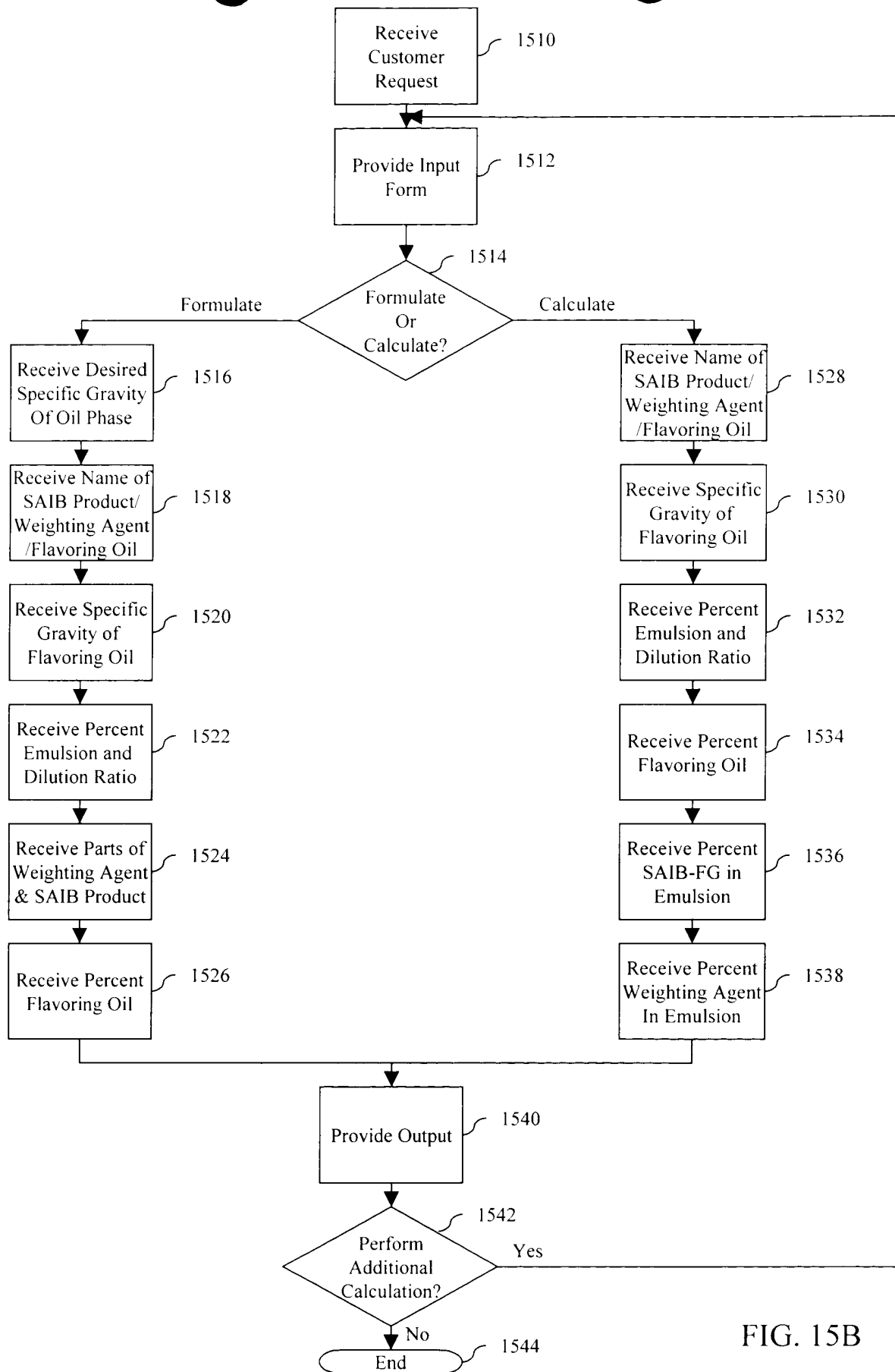


FIG. 15B



FIG. 15C

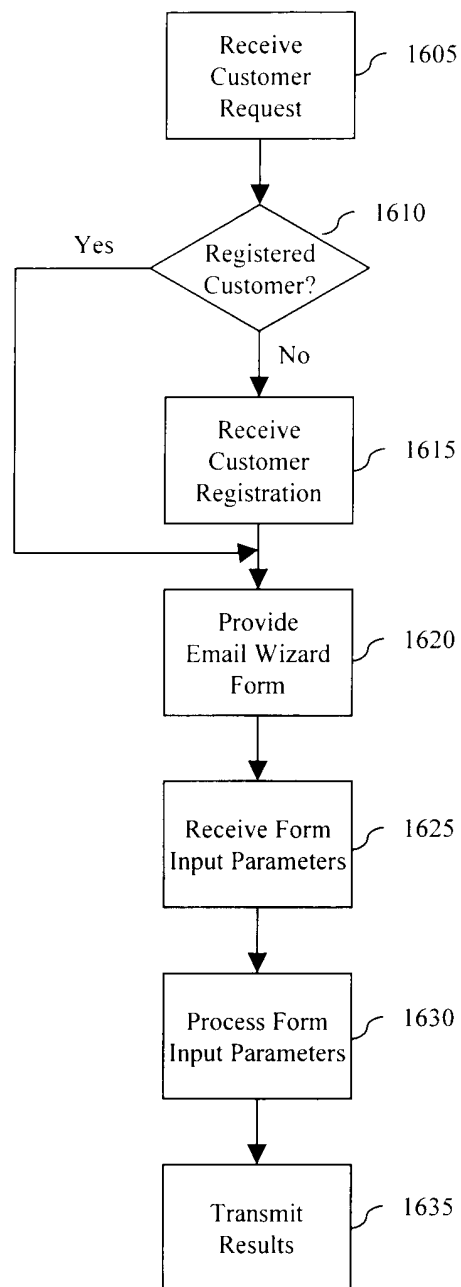


FIG. 16

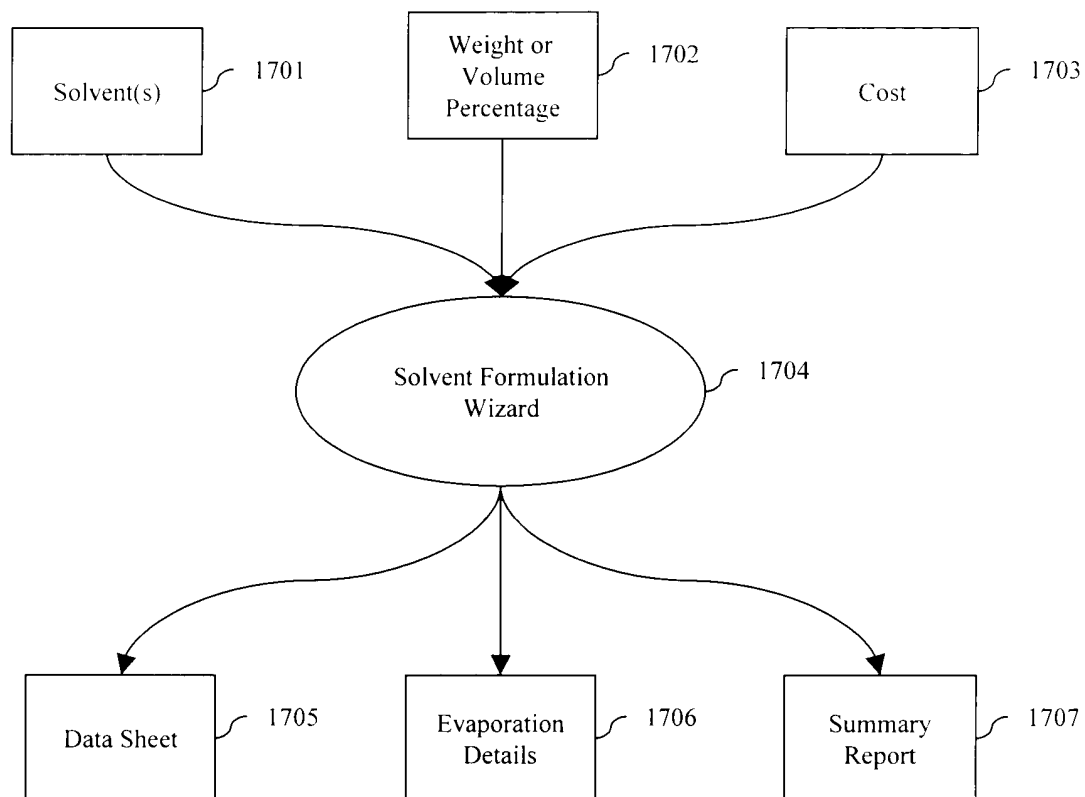


FIG. 17A

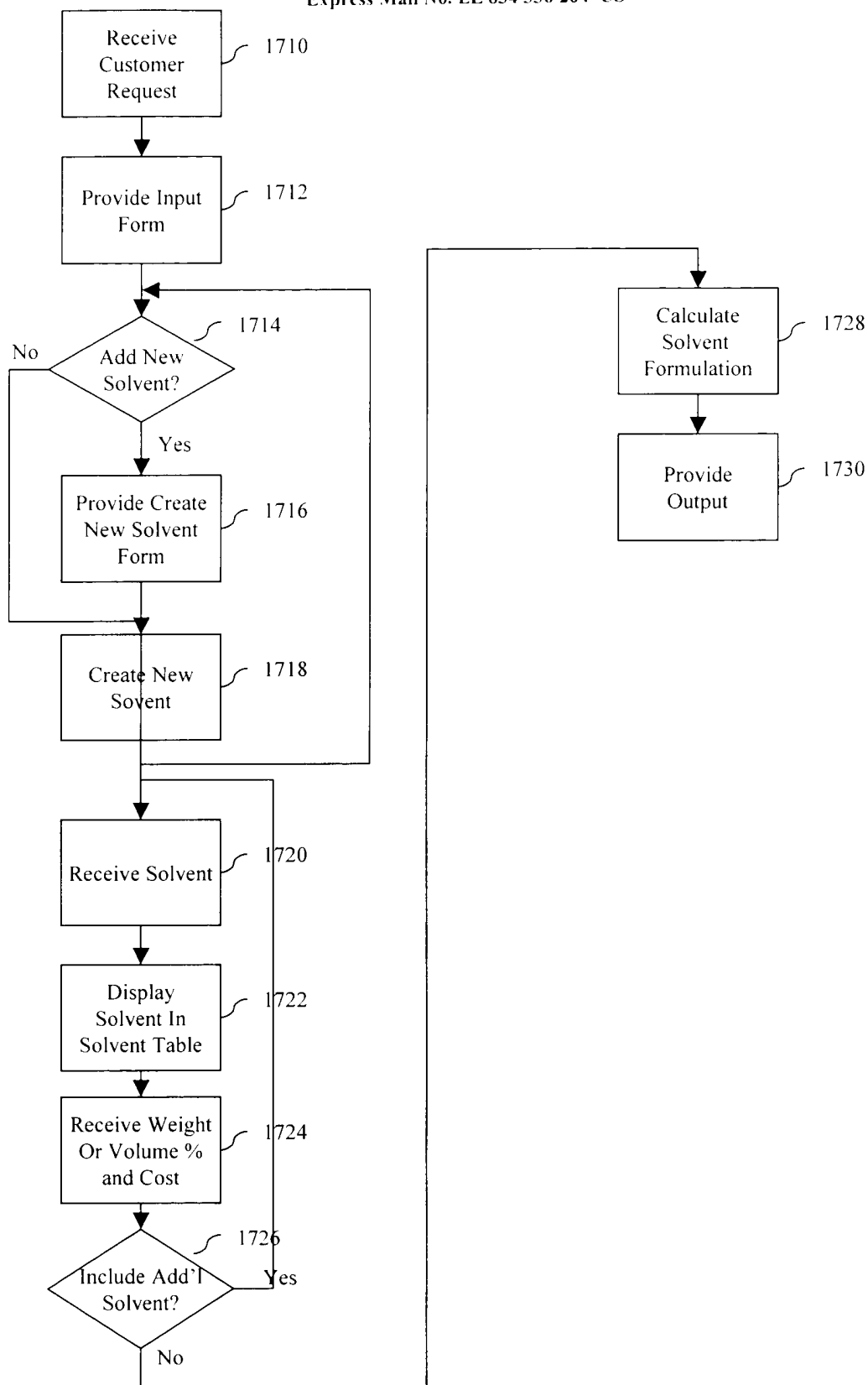


FIG. 17B

Solvent Reformulation - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Stop Refresh Home Search Favorites History Mail Print Edit Cut Copy Paste

Address http://eastman/Wizards/Test/SolventReformulation/SolvSelection.asp

Wizards TECHNICAL SOLUTIONS EASTMAN

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Solvent Selection

* = Required Field

Solvent Group: Esters 1750

Hydrogen Bonding: ☒ Normal ☐ Revised

Solvent Selection:

Click here to add Unlisted Solvent

METHYL ACETATE
ISOBUTYL ACETATE
ISOPROPYL ACETATE

Add selected Solvent(s) to table below 1752

Solvent Name 1755

ISOBUTYL ACETATE
ISOPROPYL ACETATE

Clear All Solvents Selected

Weight % 1756
Volume % 1757
Cents per pound 1758

Control Blend

HELP?

Delete
Delete

Done Local intranet

Start Projects - Micro RE: Connected Visual Source Exploring - D:\ Microsoft Wor Solvent Re...

FIG. 17C

Solvent Reformulation - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Stop Refresh Home Search Favorites History Mail Print Edit Cut Copy Paste

Address http://eastman/Wizards/Test/SolventReformulation/SolvAddNewSolvent.asp

Wizards TECHNICAL SOLUTIONS EASTMAN

Contact Us How To Use The Wizard Close Window

Add New Solvent

* = Required Field

Solvent Name: * 1760

Viscosity: * 1760

90% Evaporation Time: * 1760

Density: * 1760

Molecular Weight: * 1760

Hansen Values

Dispersion: * 1763

Polar: * 1763

Hydrogen Bonding: * 1763

Threshold Limit Value

PPM: * 1764

MG/M3: * 1764

Flash Point: * 1761

Flash Method: * 1761

Surface Tension: * 1761

Refractive Index: * 1765

Refractive Temperature: * 1765

Cancel and Return To Solvent selection screen

Click Here To Add Solvent 1766

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Start Projects - Micro RE: Connected Visual Source Exploring - D:\ Microsoft Wor Solvent Re...

FIG. 17D

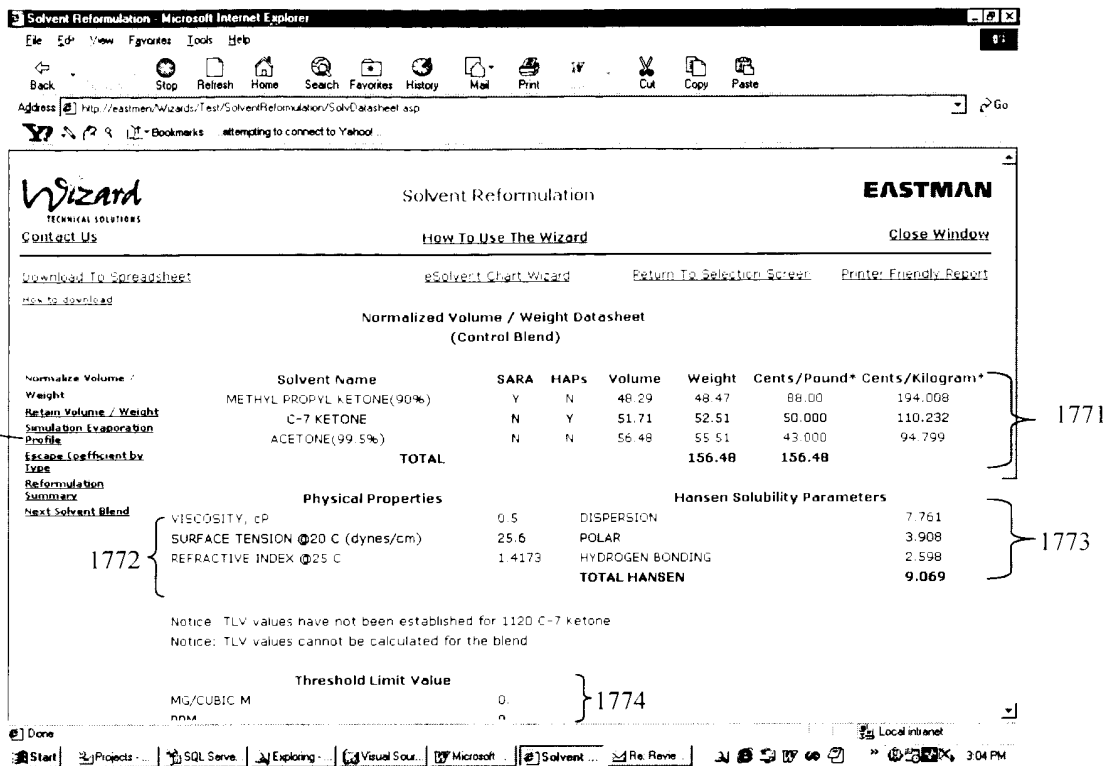


FIG. 17E

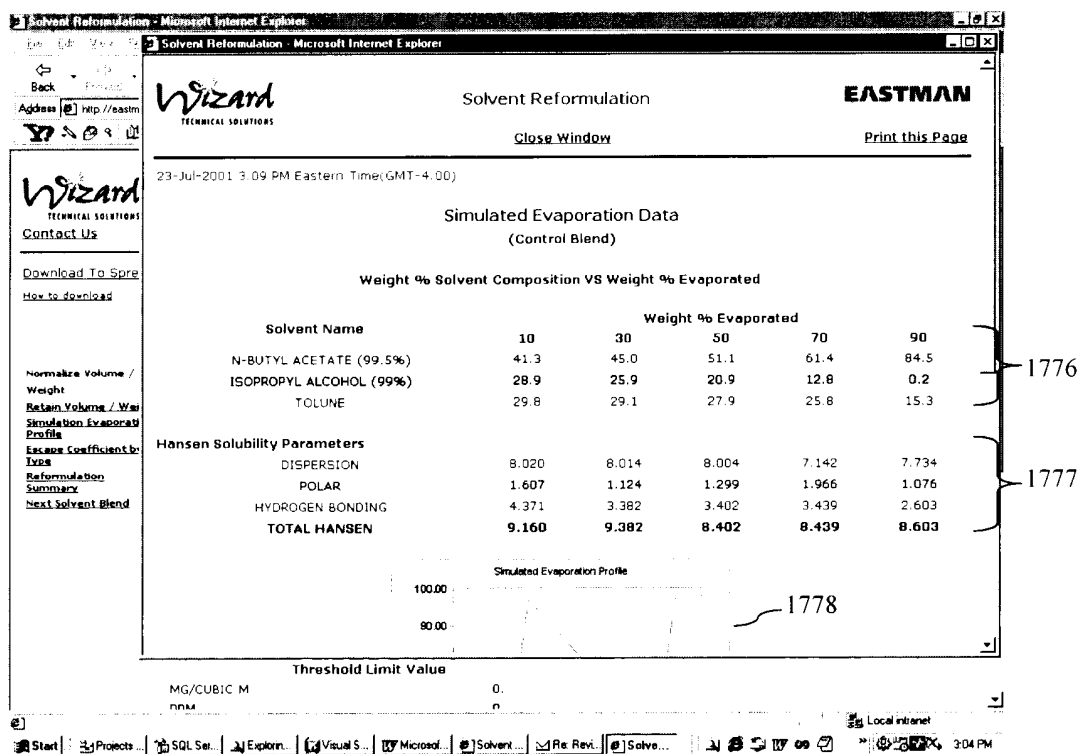


FIG. 17F

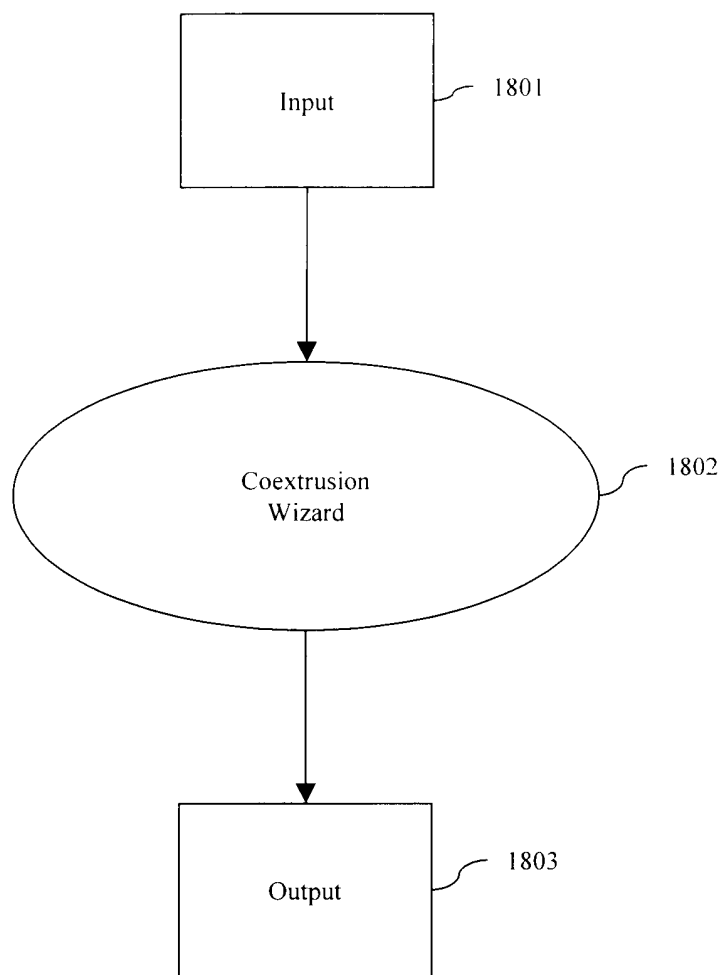


FIG. 18

Compare Search Help

Solvents Selection Criteria
For a list of all solvents select 'All' for each criteria and click Create Report.

Supplier: <input type="radio"/> All <input checked="" type="radio"/> Eastman	Flash Point: <input type="radio"/> All <input type="radio"/> Non-Flash ($\geq 60.5^{\circ}\text{C}$ (141°F)) <input checked="" type="radio"/> Flash ($< 60.5^{\circ}\text{C}$ (141°F))
Evaporation Rate: <input type="radio"/> All <input checked="" type="radio"/> Fast (≥ 3.0) <input type="radio"/> Medium (3.0 - 0.6) <input type="radio"/> Slow (0.6 - 0.12) <input type="radio"/> Very Slow (< 0.12)	Water Solubility: <input checked="" type="radio"/> All <input type="radio"/> Soluble <input type="radio"/> Insoluble
Nitrocellulose Solubility: <input checked="" type="radio"/> All <input type="radio"/> Active <input type="radio"/> Latent <input type="radio"/> Diluent	HAPS: <input checked="" type="radio"/> All <input type="radio"/> Eastman non-HAPs
Sort By: <input checked="" type="radio"/> Name <input type="radio"/> Flash Point <input type="radio"/> Evaporation Rate	Chemical Grade <input checked="" type="radio"/> All <input type="radio"/> Urethane <input type="radio"/> Trace Metals (< 10 ppb)

[Create Report](#) [Reset Criteria](#) [Return to e-Solvent Home Page](#)

FIG. 19A

Sort By:

☒ Name ☐ Flash Point
☐ Evaporation Rate

Solvents Report

Selection Criteria: Sorted By Name, Supplier = Eastman, Flash Point = Flash (<60.5°C (141°F)), Evap Rate = Fast (>=3.0), Water = All, Nitrocellulose = All, HAPS = All, Chemical Grade = All

Solvent	Eastman Product?	Evaporation Rate, nBuOAc = 1	Flash Point
<u>EASTMAN Acetone, High Purity Sales Grade</u>	Yes	6.3	-20°C (-4°F)
<u>EASTAPURE Ethyl Acetate</u>	Yes	4.1	-4°C (24°F)
<u>EASTMAN Ethyl Acetate, 85- 88%</u>	Yes	4.2	-3°C (27°F)
<u>EASTMAN Ethyl Acetate, Urethane Grade</u>	Yes	4.1	-4°C (24°F)
<u>EASTMAN Isopropyl Acetate</u>	Yes	3	2°C (35°F)
<u>EASTMAN Methyl Acetate</u>	Yes	6.0	-13°C (9°F)
<u>EASTMAN Methyl Acetate</u>	Yes	6.0	-15°C (9°F)
<u>EASTMAN Methyl Acetate</u>	Yes	6.0	-13°C (5°F)
<u>EASTMAN Methyl Acetate</u>	Yes	6.0	-15°C (5°F)

[Return to Selection Page](#)

[Printer Friendly Report](#)

FIG. 19B

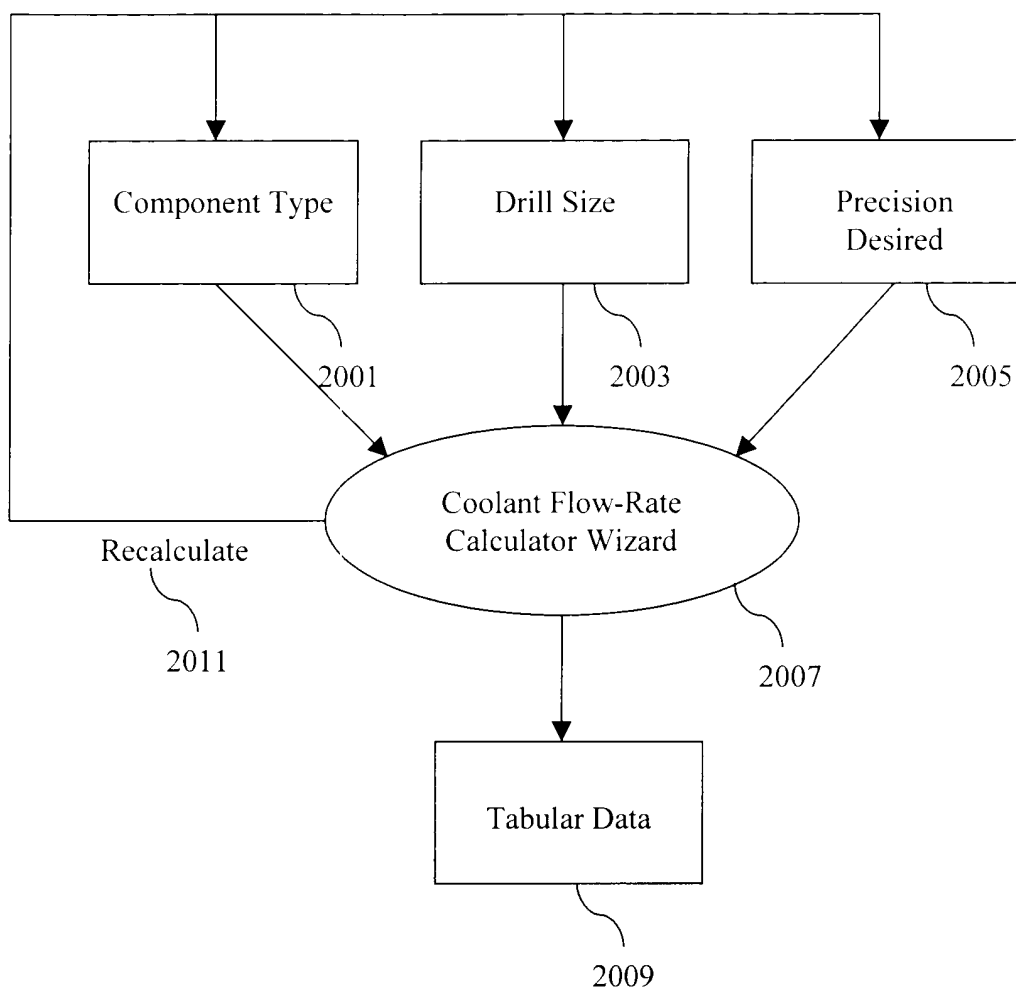


FIGURE 20A

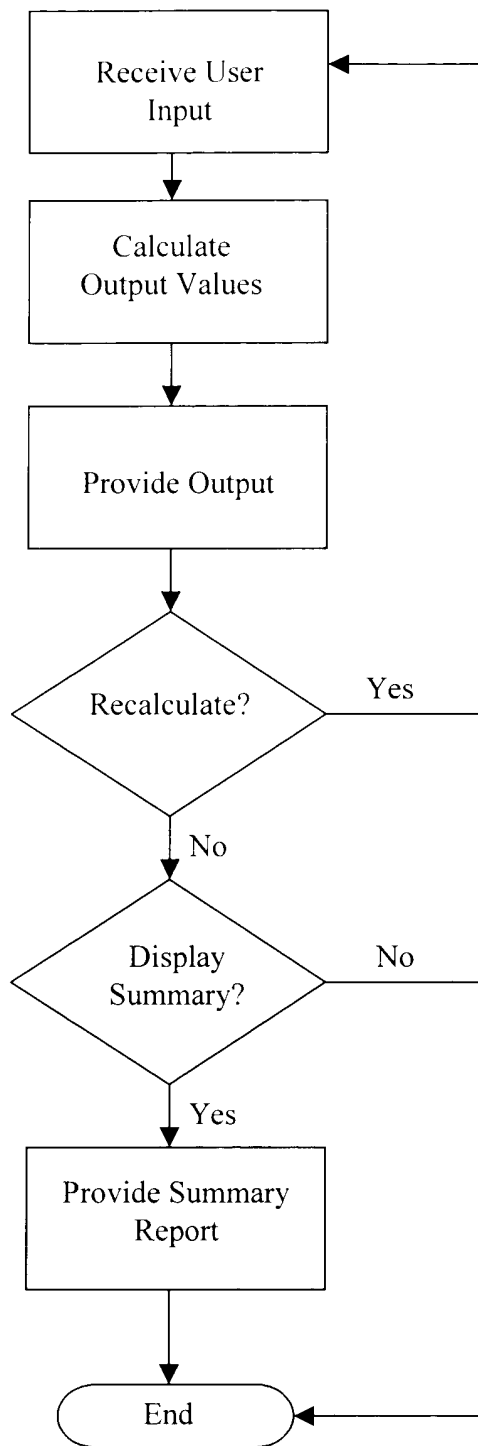


FIGURE 20B

2 Flow Rate Calculator - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

File Edit View Favorites Tools Help

Back Stop Home Favorites Print History Full Screen

Address http://www.eastman.com/Wizards/flowrate/FlowRatePC.asp Go

Wizard
TECHNICAL SOLUTIONS

Coolant Flow Rate Calculator 2000

[Contact Us](#) 2091

[How to use this Wizard](#) 2012

Select the desired component calculation: channel, baffle, or bubbler:

2002 Channels 2020 Select Pipe (Drill)

2004 Baffles 2040 Select (Drill)

2006 Bubblers 2060 Select OD/ID (Drill)

Precision (Significant Digits): 2 2014

2075 Minimum water flow rate to achieve turbulent flow

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FIGURE 20C

Flow Rate Calculator - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

File Edit View Favorites Tools Help

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Address http://www.eastman.com/Wizards/flowrate/FlowRatePC.asp

Wizard TECHNICAL SOLUTIONS

Coolant Flow Rate Calculator 2000B

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Channel: 3/8 (0.578) Baffle: Select (Drill) Bubbler: Select OD/ID (Drill)

Precision (Significant Digits): 2

ReCalculate

Minimum water flow rate to achieve turbulent flow

Component = Channel; Selected Value = 3/8 (0.578); Precision = 2

Water Temperature (F)	Minimum Flow Rate (gpm)
40	1.69
50	1.44
60	1.23
70	1.08
80	0.94
90	0.83

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FIGURE 20D

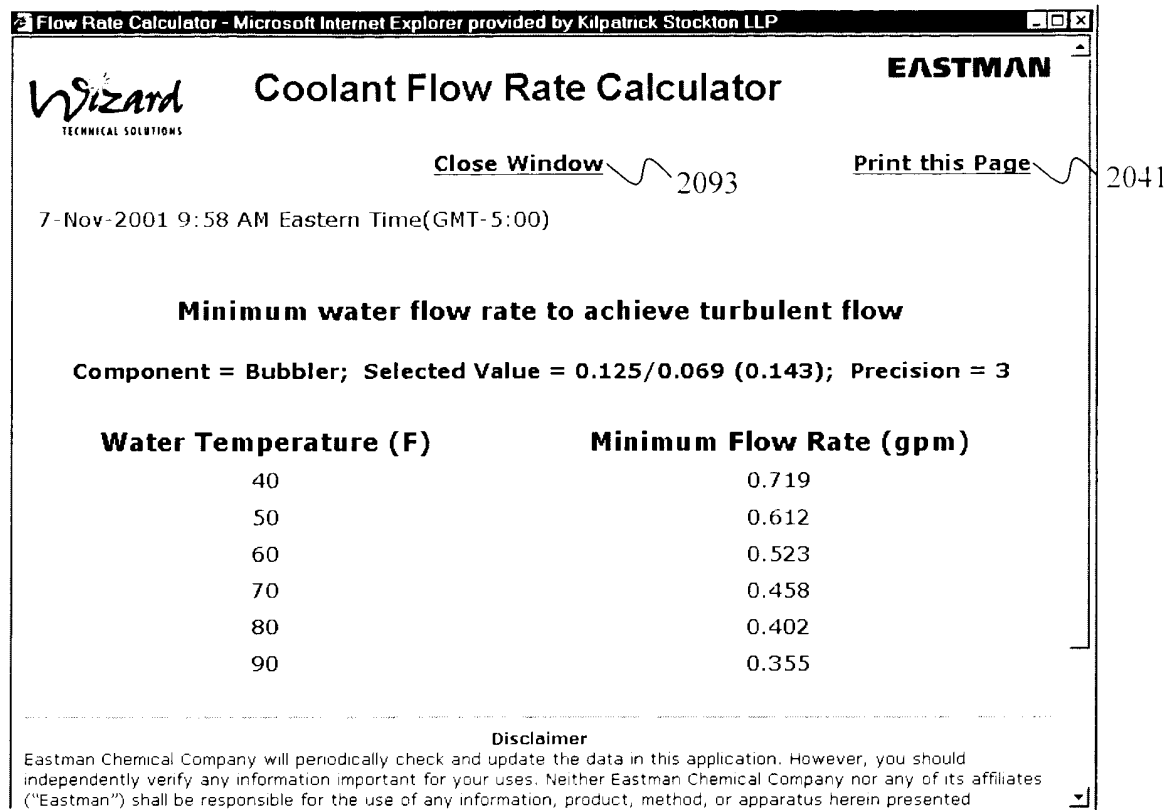


FIGURE 20E